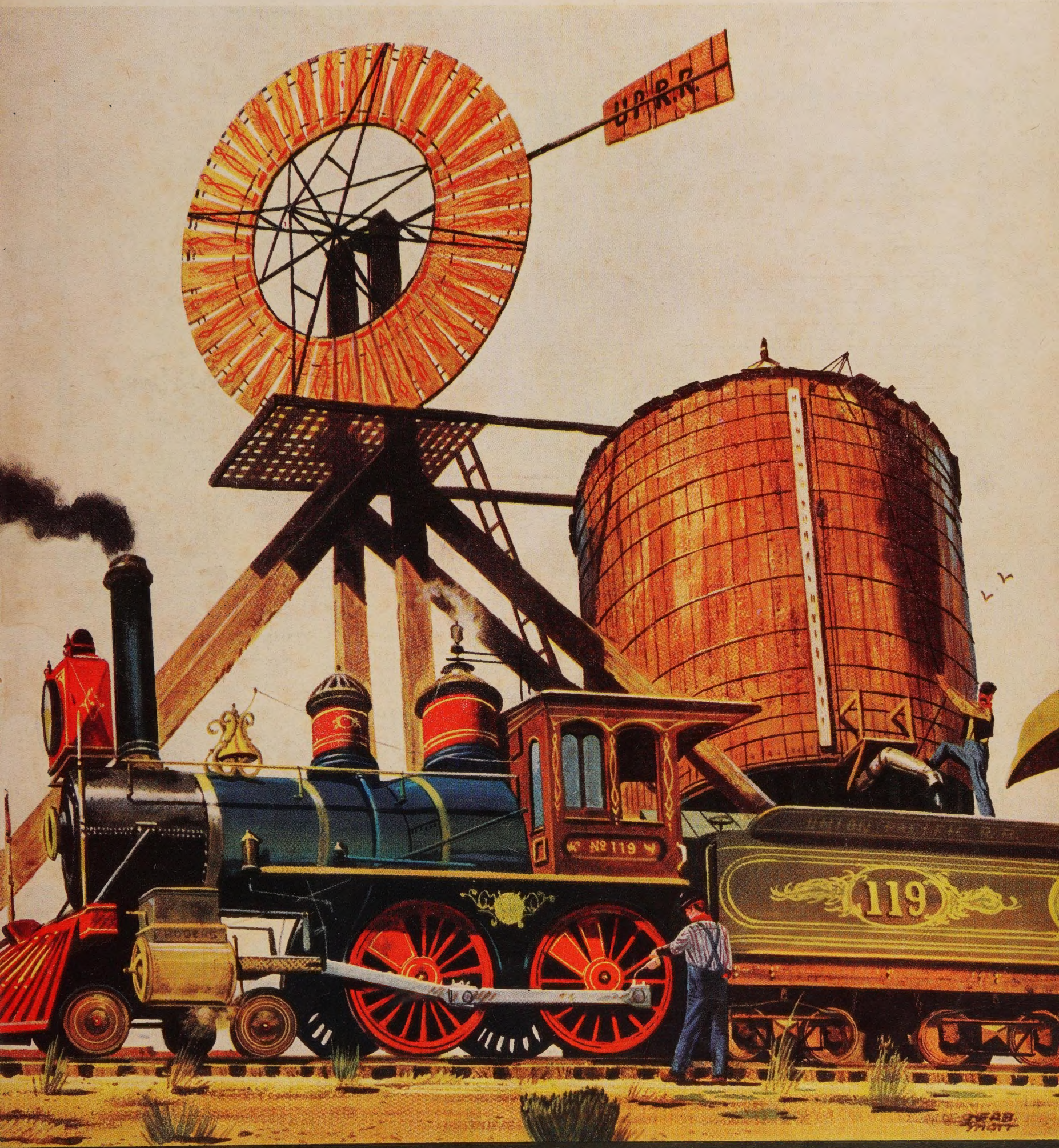
# RAILROAD

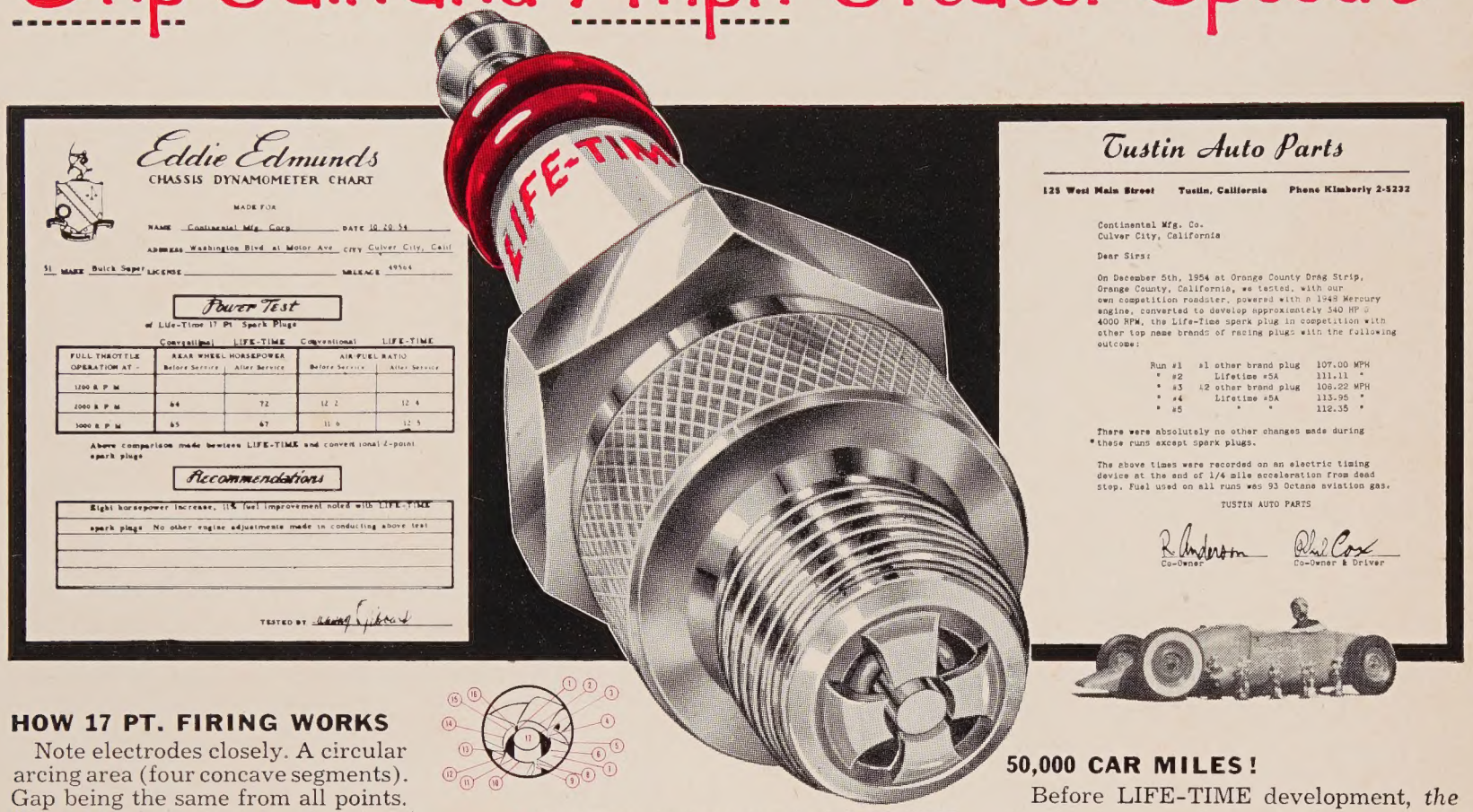
MAGAZINE | OCTOBER 50c




## WATER-TOWERS, WINDMILLS and TRACK PANS

*The Iron Horse, Whether Steam or Diesel, Has Always Been Thirsty*

# 17 pt. Self-Cleaning Plug Alone Shows 8 hp Gain and 7 mph Greater Speed!


Eddie Edmunds
CHASSIS DYNAMOMETER CHART
MADE FOR
NAME Continental Mfg. Corp. DATE 10-20-54
ADDRESS Washington Blvd. at Motor Ave. CITY Culver City, Calif
51 MAKE Buick Super LICENSE MILEAGE 49504
Power Test
of Life-Time 17 Pt. Spark Plugs
Conventional LIFE-TIME Conventional LIFE-TIME
FULL THROTTLE OPERATION AT
REAR WHEEL HORSEPOWER
AIR/FUEL RATIO
Before Service
After Service
1200 R.P.M.
2000 R.P.M. 64 72 12.2 12.4
3000 R.P.M. 65 67 11.6 12.5
Above comparison made between LIFE-TIME and conventional 2-point spark plugs
Recommendations
Eight horsepower increase, 11% fuel improvement noted with LIFE-TIME spark plugs. No other engine adjustments made in conducting above test
TESTED BY
LIFE-TIME
Tustin Auto Parts
125 West Main Street Tustin, California Phone Kimberly 2-5232
Continental Mfg. Co.
Culver City, California
Dear Sirs:
On December 5th, 1954 at Orange County Drag Strip, Orange County, California, we tested, with our own competition roadster, powered with a 1948 Mercury engine, converted to develop approximately 340 HP @ 4000 RPM, the Life-Time spark plug in competition with other top name brands of racing plugs with the following outcome:
Run #1 #1 other brand plug 107.00 MPH
" #2 Lifetime #5A 111.11 "
" #3 #2 other brand plug 108.22 MPH
" #4 Lifetime #5A 113.95 "
" #5 " " 112.35 "
There were absolutely no other changes made during these runs except spark plugs.
The above times were recorded on an electric timing device at the end of 1/4 mile acceleration from dead stop. Fuel used on all runs was 93 Octane aviation gas.
TUSTIN AUTO PARTS
Co-Owner
Co-Owner & Driver

## HOW 17 PT. FIRING WORKS

Note electrodes closely. A circular arcing area (four concave segments). Gap being the same from all points. Electricity has property of arcing from coldest point. Current also arcs more readily from apex of two planes than from the face of a flat, metallic surface.

Note that there are 16 apexes (where two planes meet) — all the same distance from the center electrode. Normal heat and spark erosion are spread around the entire 360 degrees and around the whole circumference of the center electrode.

## FULL ROTATING SPARK

allows overall cooler electrode temperature for greatly increased life. Hotter spark prevents fouling, yet the rotating and cooling effects minimize the common faults of burning, erosion, blistering and insulator failure. Compare this principle with the conventional 2-point spark plug design.

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- **INDIVIDUAL INSPECTION—** *Each LIFE-TIME Spark Plug is tested for firing in oil and for resistance to 30,000 volts/CM*
- **PERMANENT GAP —** *After months of use LIFE-TIME Spark Plugs mike at exact factory pre-gap.*
- **SELF CLEANING FOR LIFE—** *Confined gases exploding in chamber formed by multiple electrodes reclean arcing surfaces with each firing stroke.*

NOW...

## ORDER REGISTERED SET FOR YOUR CAR AT POPULAR PRICE!

**Dealers and Distributors:** *The LIFE-TIME Spark Plug is now in full production. Write for full details. Distributors: Please inquire as to status of your territory.*

## 50,000 CAR MILES!

Before LIFE-TIME development, *the spark plug was the most often replaced part of your car.* Engineers agreed that "creeping paralysis," gradual electrode disintegration, carbon buildup, widening gap, could waste one gallon in ten. The LIFE-TIME Plug has now gone far beyond the life of the average set of tires, the average battery. This plug still fired clean, hot and steady at *50,000 car miles!*

Most spectacular spark plug research breakthrough in 50 years allows us to include this unique and unprecedented warranty with every set of LIFE-TIME Spark Plugs. WE GUARANTEE GREATER GAS MILEAGE — GREATER ACCELERATION — A MAJOR POWER INCREASE — OR YOUR MONEY BACK.

## YOU RECEIVE BY MAIL

this registered set of LIFE-TIME Spark Plugs in proper series (heat range and gap) for the car you indicate in coupon. NOW AVAILABLE FOR AMERICAN & EUROPEAN PASSENGER CARS, TRUCKS, BOATS, FARM EQUIPMENT, INDUSTRIAL ENGINES.

**LIFE-TIME Spark Plug Division,**
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Make of my car is.....Year.....

Model.....No. Cyl.....

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## 8 HORSEPOWER GAIN!

Dear Car Owner:

The real test of a spark plug is "What will it do in my own car?" Take the above dynamometer test on a 1951 Buick Super. It shows an 8 horsepower gain with Life-Time 17-point plugs. This was a 12½% hp gain at 2000 RPM. You don't need a dynamometer with Life-Time plugs. You can feel the difference both in your ride and your pocketbook. Try a set and let me hear from you about them. Many thanks!

Frank Williams

Inventor of the LIFE-TIME Spark Plug

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## *in your future*

Life's problems are never simple to solve. In most cases they require help and inspiration from others.

It was Emerson who said—"Our chief want in life is somebody who shall make us do what we can."

Perhaps one of today's most common problems has something to do with an individual's job. "Why can't I make more money?". . ."Will I be the next to be fired?". . ."Why are others promoted over me?" are some of the questions that plague most of us at some time or another.

If you wonder about *your* job security, about your future, here's help that is yours for the asking. Three FREE BOOKS—any one of which could change the course of your entire life.

Don't put it off. If you are really interested in succeeding, send for these three free books today. Remember, hesitation is one of the greatest causes of failure.

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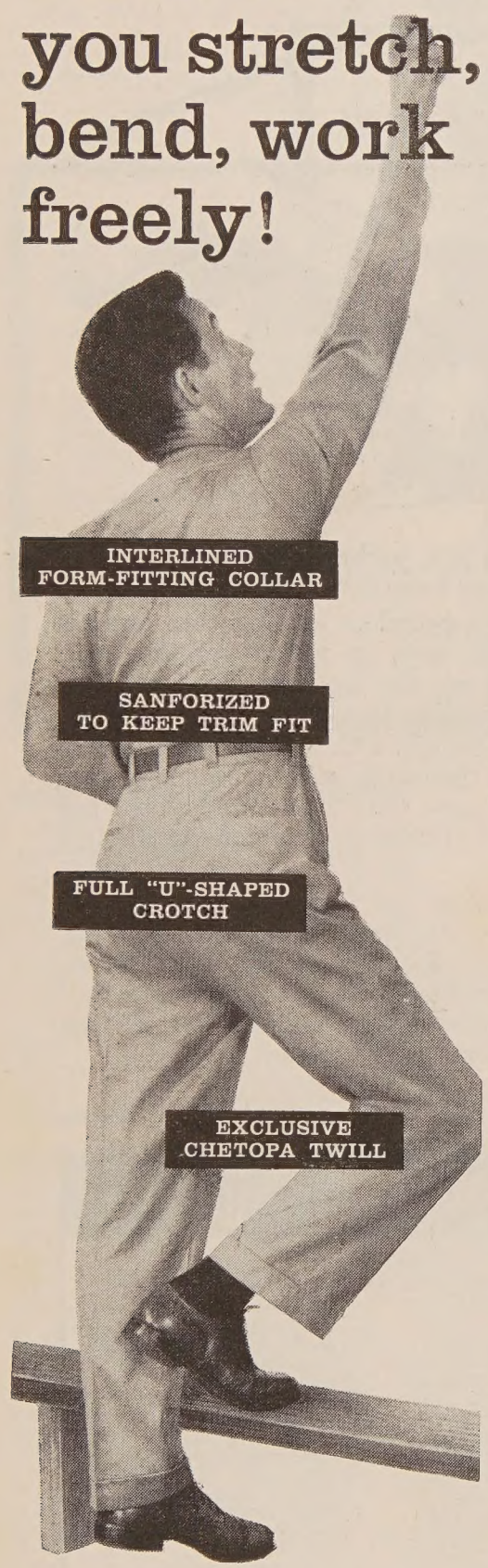


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Hedrich-Blessing for Illinois Central Railroad

**Photographic trick. Focus your camera on a train reflected in clear water in such a way that you can turn the picture upside down and get the same effect. Here we see the Illinois Central's very modern *City of Miami* gliding northward through Alabama enroute to Chicago.**

WHAT is the future of electric operation on the Pennsy, now that 75 percent of the system's train service has been dieselized? To find the answer to this question, with its economic and operational problems, the Pennsy is having a broad survey made jointly by General Electric, Westinghouse Electric, and its own motive-power experts.

Among the matters to be decided upon are further possibilities in the integration of diesel and electric service, the question of the economies of diesel and electric operation in various services, and the relationship of these factors and others to the possible elimination of the Pennsy's remaining steam engines.

The system is determined to find out: (a) Should electrification be expanded, (b) should it be limited to its present scope, or (c) should it be cut hard? (d) What shall be done with the steam locomotives now hauling trains over part of the run between New York City and Bay Head Jct., N.J., on the New York & Long Branch line, the rest of which is electrically-operated? (e) Shall the electrified lines be extended west from Harrisburg to Altoona, Pa.? •

RARELY do you find a man and his son who are locomotive engineers in active service at the same time, like William K. Strickland, Sr. and Jr., on the Southern's Columbia Division. Who knows of others? •

340 PASSENGERS wearing mink coats were aboard the new Canadian National train *Continental Limited* when it reached Montreal the other day. Despite their luxurious coats, the travelers didn't feel at all strange in mink—because, you see, they *were* mink. The 340 little animals were on their way from Dauphin, Man., to Newfoundland under a government scheme to build up the mink industry there. •

DID any of our readers wed a Harvey House girl? If so, we'd like him to tell us about it briefly, for publication in *Mail Car*. The same applies to any "beanery queen" who married a railroader. •

N&W HAS JUST BROKEN its old all-steam tradition by buying 8 general-purpose diesel locomotive units—to be delivered this fall—for its light-traffic branch between Lynchburg, Va., and Durham, N. C.

The newcomers will be used as single units for switching and in multiples of 3 or 4 for road hauling. They will release heavy steamers that now run on the branch but are needed for main-line duty, which is more important.

# MAIL CAR

***Running Orders, Waybills, and Sandhouse Gossip—from Railroaders, Fans, and the Editorial Crew***

"This does not mean," says R. H. Smith, N&W president, "that we have changed our view that modern, roller-bearing, coal-burning, steam locomotives can handle the major part of our traffic economically. Nor does it mean that our interest in new and better types of coal-burning engines has diminished."

Tests of General Motors 6000-hp. four-unit diesel-electrics on the Pocahontas and Scioto divisions were reported in our July '54 issue.

Besides buying 8 diesels and operating a coal-burning steam-turbine locomotive, the N&W is participating in the building of a coal-burning gas-turbine job somewhat like those currently used on the Union Pacific. •

MALLETS. "Of the Great Northern Mallets mentioned in H. L. Kelso's article (Aug. issue), three were turned over to the Burlington in 1907, reclassed, and renumbered 4000 to 4002," writes Jesse M. Grigg, former lightning slinger, 5951 S. Tripp Ave., Chicago 29, Ill. "Their tractive effort was 71,700; and, seeming odd in this age, they had slide valves.

"That year the 4000 helped trains up the steep incline of a shoo-fly near Ayers, Ill., where the track was being straightened. One day an air hose burst and a caboose was crushed. Weeks later, Conductor Shuman came out of a hospital on crutches, informed that he'd never again be able to walk without them. Yet he fooled the doctors and went back into train service. This accident led to the CB&Q rule that either a pusher be cut in ahead of the waycar or the crew 'decorate' a safe distance ahead.

"One night in 1908, although I was aware of the rule and the danger, yet unwilling to lead a gang of construction workers over moving coal in the

***(Continued on page 6)***

# HOW TO FIX

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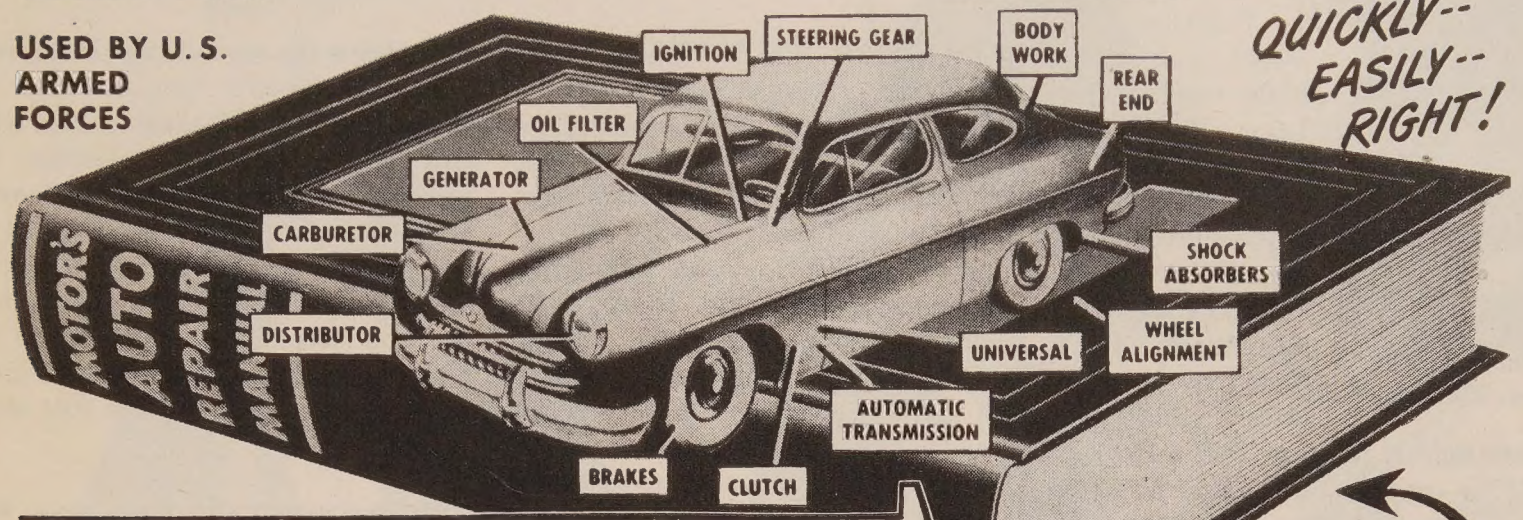


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dark, I herded them to ride the caboose roof while the mighty 4000 helped the double-headed train out of the Illinois River bottom. As three engines jock-eyed to the slack, the roof rose and fell with every breath of the Mallet. I stood poised ready for a tense half-hour to take wings if the train should break in two." •

**Irvin Witherspoon**

85 YEARS old last St. Patrick's Day —that is Irvin S. Witherspoon of the Texas & Pacific, who claims to be the world's oldest active railroad conductor. Irvin lives at 2524 Carter St., Fort Worth, Tex.; beats by almost three years the Illinois Central hero of "Still a Hogger at 82" in our May issue. And he's not yet ready to let Father Time force him off his run.

"Retire?" the Associated Press quotes him as saying, "No, sir, I ain't about ready to retire. Took my eyesight and hearing tests a few months ago and passed again. Company says that as long as I'm fit I can keep right on working."

Witherspoon is trim and wiry—straight as a rail, with an abdomen as flat as an Indian's, and alert and jovial. His sharp features jut from silvery hair and eyebrows. He averages 5340 miles a month on his run between Fort Worth and Big Springs, 256 miles each way.

This remarkable skipper went to work for the T&P on Jan. 1, 1890, as a brakeman on a work-train repairing bridges. In those rough and rowdy days Jay Gould owned the system. Witherspoon was promoted to freight conductor in 1899, passenger conductor in 1909.

"One night," he remembers, "I was on a passenger run out of Strawn, Texas. All of a sudden we stopped out in the brush. A lone wolf bandit pulled the airbrake and took possession of our train. I found myself looking into a .45 revolver. I'd left my own Colt in my suitcase, so there was nothing for us to do but stand there. Later, he backed out and fled. Don't know how much he got from all of our passengers."

Witherspoon tells about the night a drunk pulled a knife on him. " 'Sam,' I said, 'if you don't put that up I'm gonna shoot you right through the belly.' Well, that took the meanness out of him and we got him sobered up. It seems he was on the wrong train."

The AP man wanted to know why Witherspoon didn't retire.

"Well," the railroader drawled, "I get along better working steady instead of laying around." His eyes twinkled. "Don't get old until you have to—remember that!" •

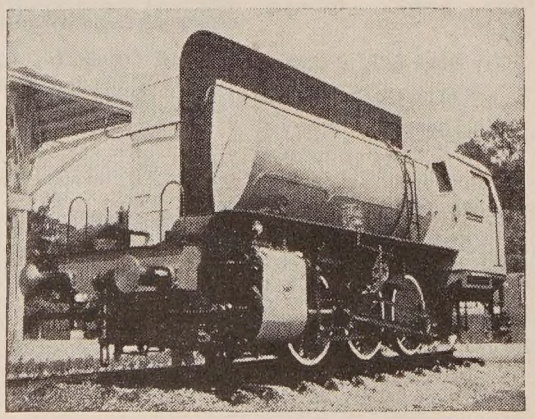
HAYWIRE NAC'S "Switch-Shanty Yarn" (August issue) delighted, among others, an old Canadian National hogger named Fred W. Powers, 353 McGowan Ave., North Kamloops, B. C. The yarn made Fred chuckle.

"It reminds me," says he, "of a snake (switchman) known as Hook Lane, whom Mac should remember, because they both were around Winnipeg at that time. Hook went in to see the Canadian National's general super at Winnipeg. The brass collar needed help. It seems that the downtown wholesale lead tracks were blocked for a mile and that he, Hook, was the only cock-eyed snake in Manitoba who could spot the cars that had to be spotted. The official winked. Producing a quart of Scotch, he said, in violation of Rule G, 'Take this and grease your way in!'

"Hook opened the bottle, sampled the contents, and grinned. 'It's good switchmen's brew.' Then he set to work. First he succeeded in getting water to the goat, old 32, with some aid from the Winnipeg Fire Department. His hogger was George Walsby. Fourteen hours and three quarts later, Hook and his crew emerged from the jam with his goat and the outbound loads, leaving behind 100-odd stored empties where he had found them.

"Don't ask me how he did it. I only know it *was* done, for I witnessed it. At that time I was working on a goat out of Ft. Rouge shops, Winnipeg, and I saw Hook Lane return to the yard with George Walsby after they had accomplished a week's job in 14 hours. Even the boomers employed in the yard were astonished. Except for Hook's two helpers, they had loudly said the task was impossible—until it was actually done.

"Yes, Mac wrote a true-to-life kind of story. I've been in similar situations myself." •



Eastfoto

**"Fireless cooker." New type of Polish steam switcher, TKh 46, can run eight hours before refueling.**

THIS is the second bi-monthly issue in *Railroad's* long history. We skipped July and September this year. Our next issue, dated December, will come out early in October. There is no clear indication yet as to when we will get back to a monthly basis, but we are stoking up the firebox for a long run and keeping our eyes peeled for green lights. Every additional subscription we get brings the green that much nearer. •

"PERSONALLY," writes the Rev. Walter J. Olsen, pastor of the First Congregational Church, Albion, Nebr., "I don't care what kind of paper *Railroad Magazine* is printed on, nor the size of it, if its contents are slanted to appeal to that great host of men who have railroaded or are familiar with railroading."

Pastor Olsen regards the book *A Treasury of Railroad Folklore* as "kindergarten stuff" because "it is written for people who know absolutely nothing about railroading." He wants us to stay away from that kind of writing. And, although he is a model railroader himself, as well as a railfan, he feels that model articles do not belong in this magazine. •

RAILROAD CHAPEL, recently opened by the Boston & Maine in South Station, Boston, Mass., as reported in our August issue, is the only one of its kind in North America, so far as we know, but is matched by similar chapels in Argentina, Italy, and Spain. •

ONE of our South American readers is Fernando Guillermo Basombrio, Ayacucho 1031, Buenos Aires, Argentina, who writes (in English): "I am an HO scale model railroader. The other day I bought a copy of *Railroad Magazine* from a foreign book shop. I like it, especially the *Information Booth.*" •

***(Continued on page 56)***

POST CARD

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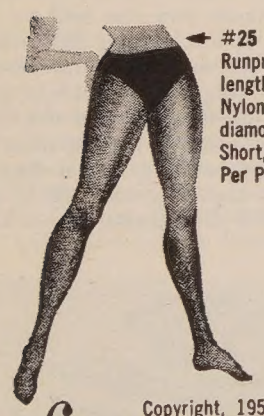

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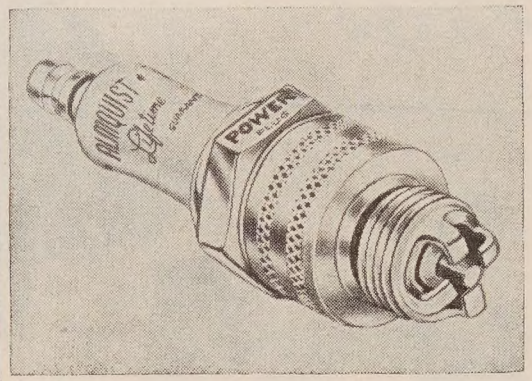
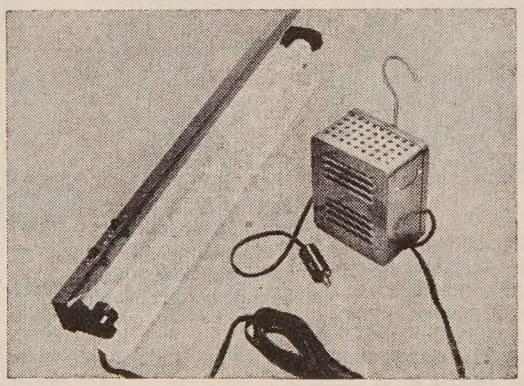
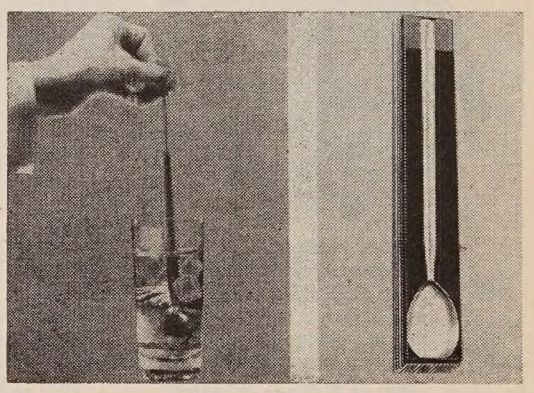



Lifetime guaranteed high compression spark plug for passenger cars and trucks, this new Almquist chrome-plated four electrode Power Plug delivers over 300% more firing action than single electrode plug. Has oxide aircraft type insulators, that resist even a hammer blow. In matched sets at 89¢ and $1.25 each. Order from Almquist Engineering Co., Inc., Milford, Pa.

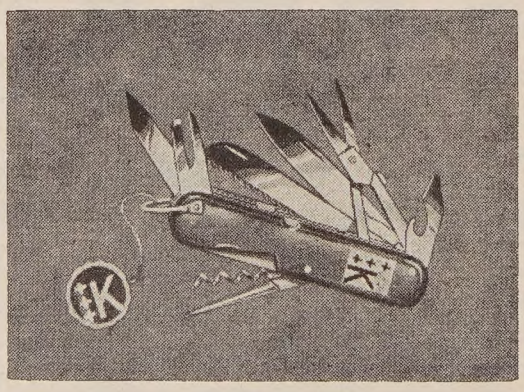
Ever wonder what goes into tying a fly? This is the first practical book we've seen that'll show you exactly how to do it. Illustrated step by step with examples of each, it's easy to follow. Comes with directions and enough makings to put up 24 flies. Gray Ghost streamer and Royal Coachman wet-fly books available. $4.95 ppd. Trail & Stream, 5 East 47th St., N.Y.



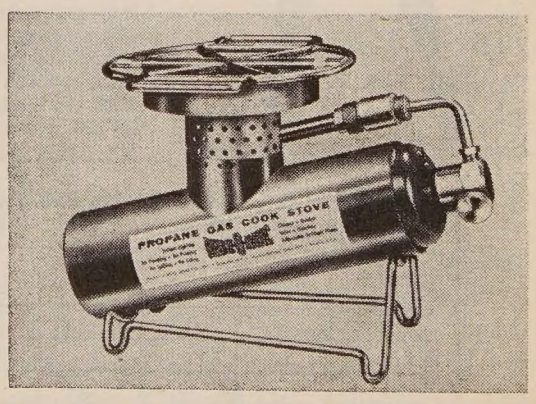
Plug this fluorescent light into your automobile lighter and you'll have a useful trouble lamp that'll give four times the light (and without glare) of an ordinary incandescent bulb. Lightweight aluminum, it comes with a 35-foot extension cord, uses less juice than the headlights. Good thing to have in your car. $15.45 ppd. Lewis & Conger, 6th Ave. & 45th St., New York.



Here's another gizmo you can add to your collection of bar items. Called Spoonomat, it's a powerful, self-contained mechanical mixer which you operate by merely pushing up and down on the top. Just the thing, the manufacturer claims, for turning out a good mixed drink without expending too much energy. It's stainless steel. $2.95 ppd. Lord George, 1270 Broadway, New York.



The Swiss Army knife is almost the best all-round utility pocketknife you can buy—and this Korium (German-made) version is a solid bargain for $3.95 ppd. from Thoresen's, Dept. AR-88, 352 Fourth Ave., New York. Handy for sportsmen, it includes a file, saw, jackknife, scissors, screwdriver, awl, pen knife, can and bottle opener and corkscrew. Has special belt attachment.

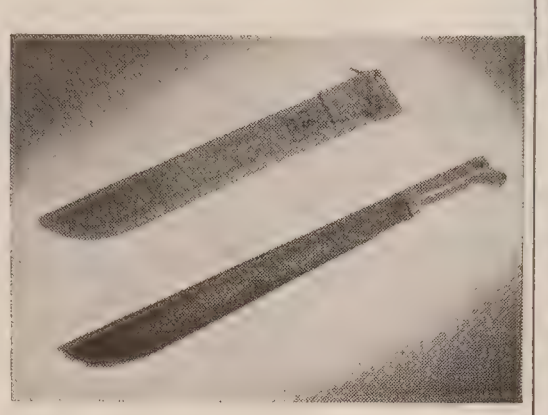



Pack this Bernz-O-Matic stove along on a trip and you won't have to diddle with carting cans of fuel. The reason: a propane-gas cylinder that'll supply enough gas for a week's cooking. Gas lights in sub-zero cold on up; stove has high altitude adjustment. Grid raises into handles for easy carrying. With cylinder, $8.95 ppd. from Charles F. Orvis Co., Manchester, Vt.

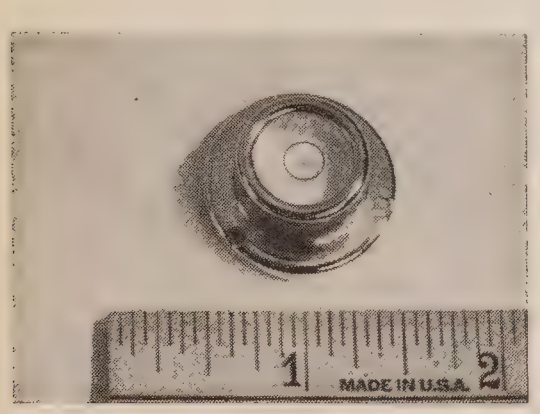
# SHOP BY MAIL

All products shown here may be obtained directly from indicated sources. Send check or money order with your order. Manufacturer will refund full purchase price on prompt return of unused, non-personalized items. This department is not composed of paid advertising.

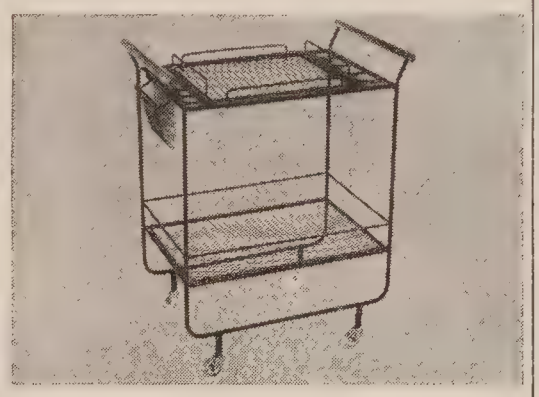
If you get hung up in the middle of the African veldt, this little emergency kit might not fill the bill. But for most fishermen and outdoorsmen, it's a handy thing to have along in your pocket. Plastic kit measures 3¼ x 2½ inches, holds compass, whistle, razor blade, bouillon cubes, matches, chalk, water purifiers, $1.98 ppd. Almo, P.O. Box 241, New Haven, Conn.



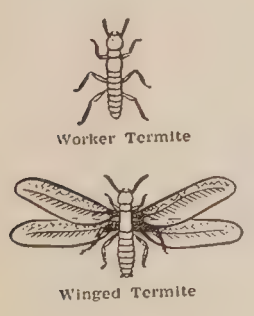
You don't have to cross the border, señor, to get one of these 18″-blade machetes. These are war surplus (the Army made 3 million for use in the South Sea Islands) and you can bush out a trial, clear a camp site, or fell a good-sized tree with one of 'em. Comes in sturdy canvas shield with belt clip for $3.95 ppd. Arms & Weapons, 40 E. 40th St., New York 16, N.Y.

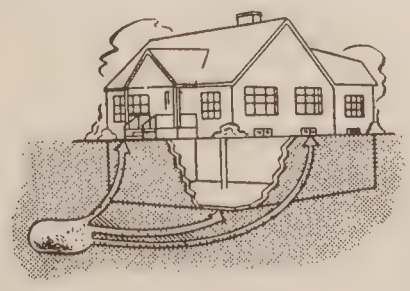


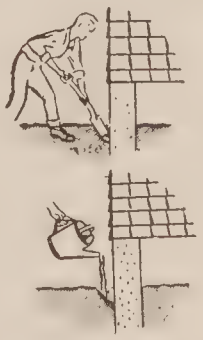

This little circular level has a lot of uses and is a solid bargain for $1.50 ppd. from the Edmund Scientific Co., 101 East Gloucester Pike, Barrington 6, N. J. Ideal for mounting on top of a camera or a telescope, it can also be mounted and used for leveling appliances, for models and for train layouts. The bubble is centered and it will give you a level in all directions.



Useful item to have around should you be planning a ball, this Schenley bar cart is a good buy for $12.50 ppd. from Merit House, Empire State Building, 350 Fifth Ave., New York. Sturdy, it's made of black hand-wrought iron, measures 2 x 1½ x 3 feet. Tip-proof racks on sides hold 4 highball and 6 shot glasses. The tray on top is removable, and can be used for serving.





Characters above are termites, and if you give 'em a chance they can cause hundreds of bucks worth of damage to your house, a couple of hundred more for an exterminator to get rid of them. They thrive in warm weather, and cold weather won't kill 'em. This 72% chlordane concentrate mixed with water will. It requires digging a trench about a spadeful deep, pouring in mixture, covering it up. Solution seeps through ground to termite nests and tunnels, gives positive protection for 4 years. It won't hurt kids, grass or shrubs—it's also effective on lawns to kill chiggers, chinch bugs and Jap beetle larvae. Average mixture from gallon of concentrate is 200 gals., good for equal number of feet. Half gal., $12; gal., $22; 3 gals., $57. All ppd. Lethelin Products, 15-A MacQuesten, Mount Vernon, N.Y.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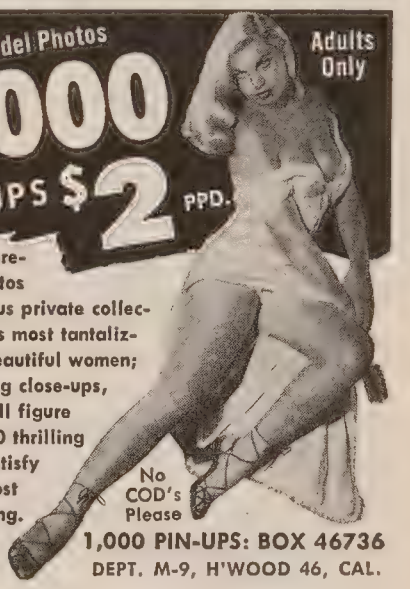

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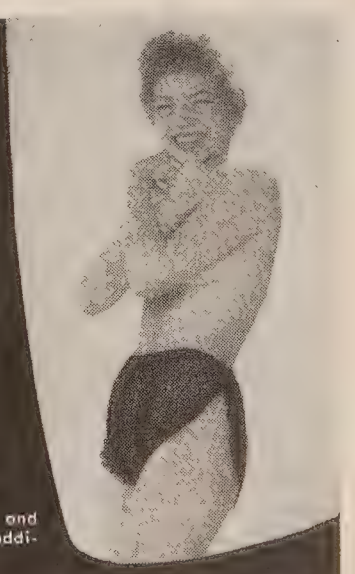

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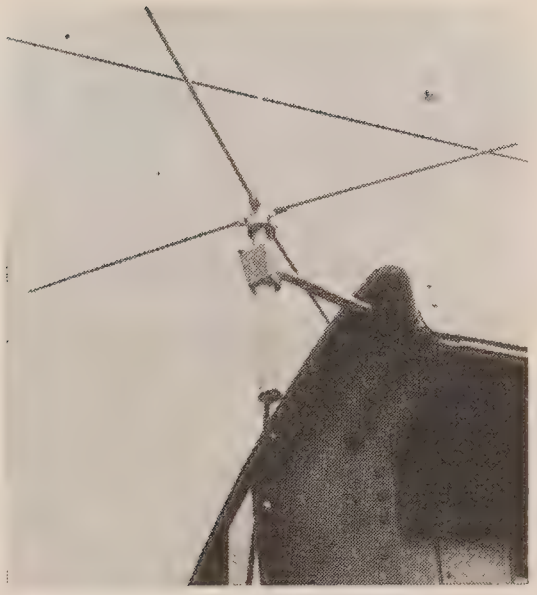
# ROBOT TRAIN

*Under Perfect Control With No One Aboard, Modern "Flying Dutchman" Traverses French Main Line Between Two Villages and Stops on a Dime*



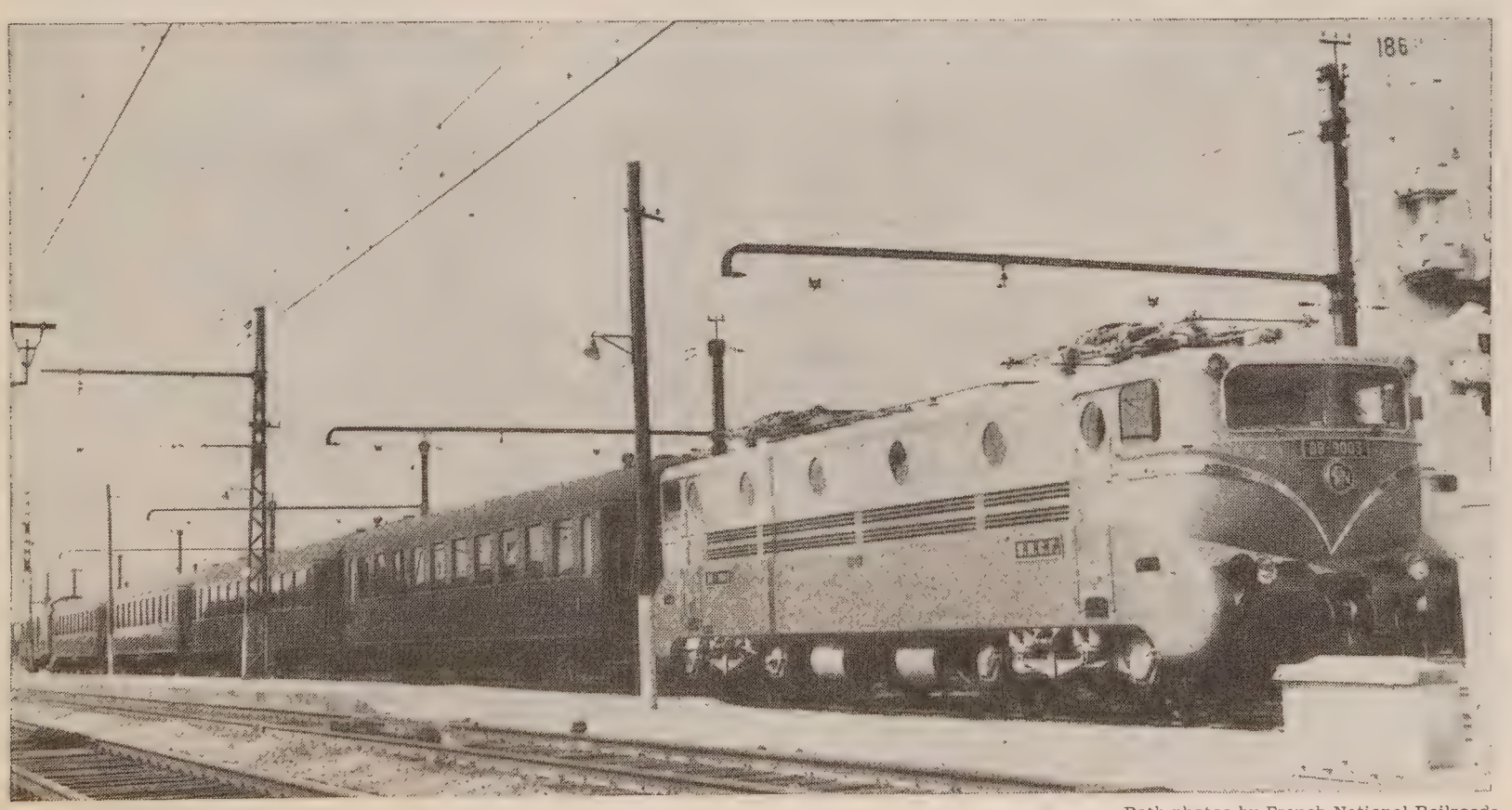
**Radio antenna on locomotive BB 9003 receives orders electronically.**

FOR THE FIRST time in history a train has been operated entirely by remote control. With no crew or passengers aboard, a passenger train of the French National Railroads last April 18th was radio-guided along the main line between the villages of Connerre and La Ferte-Bernard, 110 miles west of Paris. Her smooth start, her top running speed of 74.4 miles per hour, her braking, and her final halt—all were achieved without the direct intervention of any human hand!

Less than three weeks before this event, France had astonished the world by running a train at the almost incredible speed of 207 mph. The French railroads are worth watching.

Parallelling the robot's run was a diesel railcar with government and rail officials on board. From this car operating instructions were transmitted by radio to a nearby sub-station and relayed to the robot train. Locomotive BB 9003, used in this test, is equipped to accelerate from a standstill to maximum speed. Only two types of orders were given: (a) to control the amount of current and (b) to apply brakes.

As this magazine goes to press, further tests are being made of electronic equipment. "Our goal," says Louis Armand, chairman of the board, FNR, "is to have the signals give orders not to drivers but to machines. Man can overlook a red light, but a machine should not be able to pass one even on those exceptional occasions when man fails." •



Both photos by French National Railroads

**World's first train to be guided solely by remote control stops at end of epoch-making run. Successful test is major step toward French goal of fully automatic, fool-proof, railroad signaling and operation.**

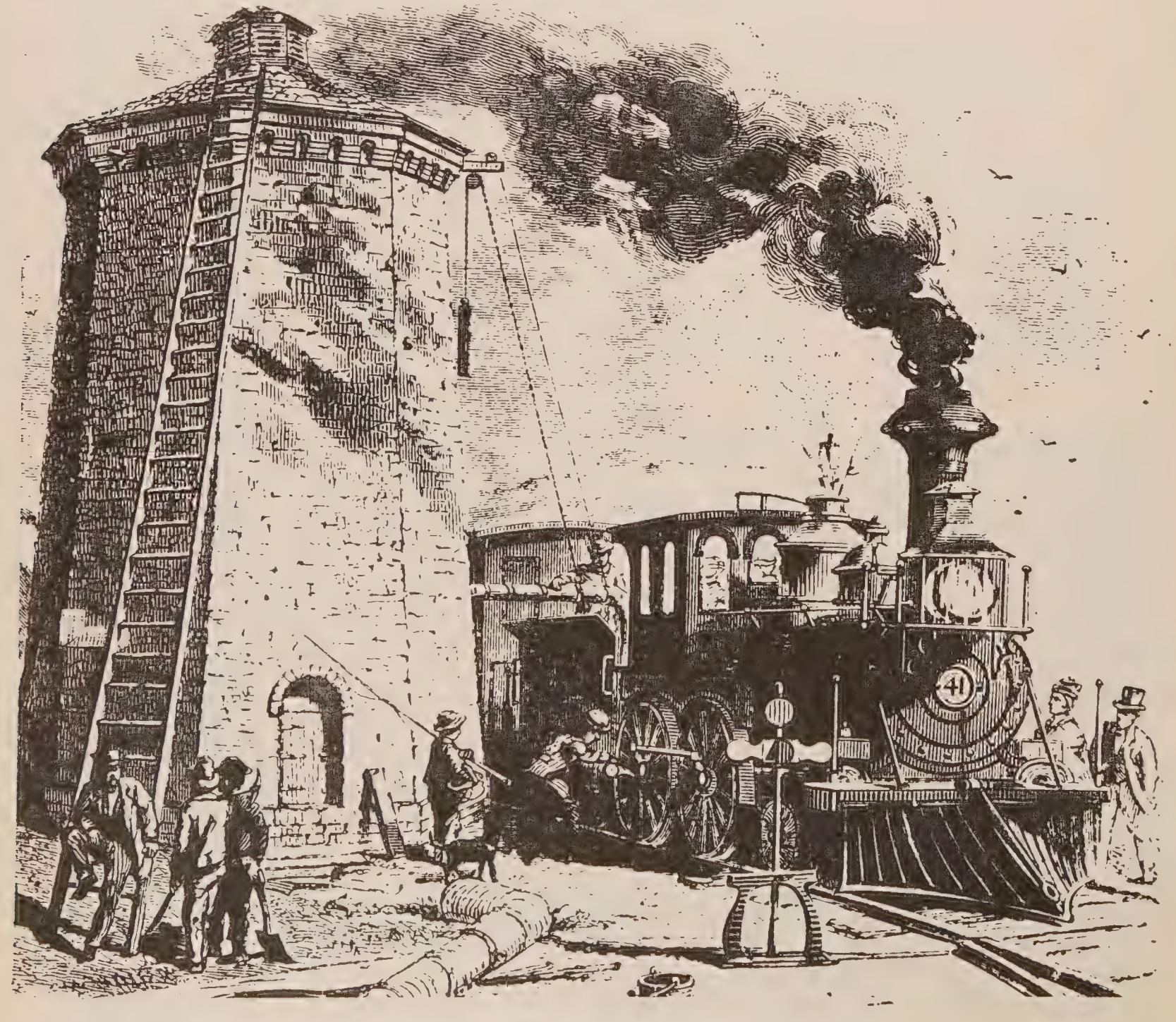
# WATER STOP

*The Railroads Have Come a Long Way from the Days when Trackside Tanks Were Needed to Keep Trains Rolling across Prairies and Mountains*

THE MEN on the fire truck at the depot in Union City, Indiana, were complaining about the weather. A fine time for a cold snap, mid-March. Behind them, nearly six hundred feet of hose trailed back to a hydrant. The hose was limp, its valve key in place, ready to turn.

Fire Chief Lloyd Morgan stared along the rails. From beyond the hills drifted the low rumble of wheels. "Here she comes," he said, and his men dropped to the ground and took their places along the hose.

A whistle screamed on the frosty air, and a few moments later a string of varnish, Big Four train No. 7, panted to a halt. Never before had this particular train or any other train made a water stop in front of Union City depot.




From an old print

**The earliest railroad water towers were built to last. This solid Erie tank of bygone days was octagonal, with a conical roof and a cupola. The counterweight shown here balanced the spout while it was being used.**

## by HAROLD COOK

One of the smoke-eaters hustled the city fire hose up to the locomotive tender where the ashcat waited, while another man opened the valve. The hose filled out and undulated like a python.

As water began gurgling noisily into the huge steel tank, the engineer yelled down to Chief Morgan, "Is Muncie froze up, too?"

"What?" Morgan asked.

The hogger raised his voice. "I hear Muncie's froze up, too."

Morgan nodded.

"Yeah, and so's Bellefontaine."

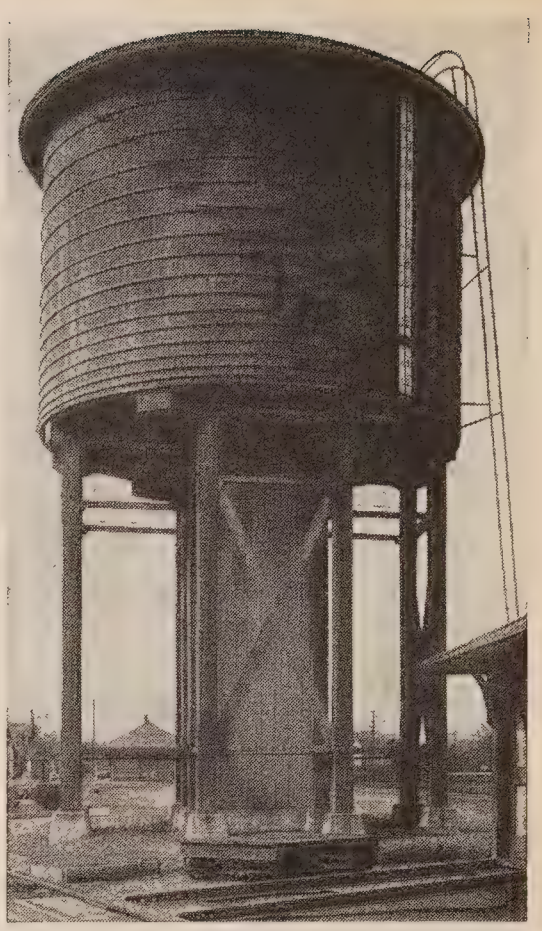
After the tank was full, the hose slithered to the ground and the man at the throttle shouted "Thanks" to the fire-laddies. Then No. 7 got under way amid clouds of smoke and steam, while water sloshed almost to the brim of the tender.

In those exciting days before the Diesel Revolution, when steam engines gulped enough water daily to float the *Queen Mary,* railroad water service could, at times, be exasperating. How were you supposed to guess that a sudden sharp drop in temperature would knock out water facilities in two towns along your route? In this case, someone had the bright idea of calling the Union City fire chief and asking for help in solving this problem. Much could be written about railroaders and city firemen cooperating.

It was a fabulous era. The railroads of America were using upwards of 600 million gallons of water yearly, and even at a cost of only four cents a thousand gallons this ran into money. Passenger haulers drank between 70 and 120 gallons a mile. But that was nothing to what the freight hogs consumed—anywhere from 150 to 350 gallons per mile, depending upon the

Santa Fe Railway

**Diesels use little water except in engine cooling systems and steam-heat generators. Today, water stations resemble highway filling stations. We see a Santa Fe diesel being watered and refueled at the road's new shops in Argentine, Kan.**



William A. Barry, Jr.

**Not all tanks had spouts. The Lackawanna's water station at Lincoln Park, N. J., consisted of a wooden tower (right) with a pump house and water column some distance away. Water was pumped into tank, carried by gravity to trackside column.**

Central of Georgia Railway

**Ever see one of these? Railway water tower for fire protection, 188 feet high, on C. of Ga. at Savannah.**

load, the mechanical condition of the engine, and the terrain. With such an insatiable thirst, water service was a major operation.

From the time the first railroads were built, steam-powered trains have rolled on water—locomotive boiler water. Any man who has ever touched a scoop can tell you that the best fire in the world is less than worthless if your boiler is dry. With their small tenders, the early iron horses had to make water stops rather often—either that or drop dead on their drivers. When water ran low enroute, the crew would pause at a creek or a reservoir, or maybe a spring or a well or a ditch, a river, a lake, or a stream, and drop a hose or get out the buckets and fill 'er up by hand. This could be quite a problem. Engines had a habit of running dry when they were miles from the nearest water supply, and even with precautions the unexpected could foul you up. Many years ago the locomotive of a circus train burned a crownsheet because a carload of elephants in the first car had drunk their fill from the tender.

Even as late as the 1890's, water stops were relatively few and far between, and water in the tender would often run low. It was common practice on the Illinois Central, for example, for an engineer to put his train on a passing track and run to the next water tower. Casey Jones was an exception. It is said that Casey could get more from a tank than anyone else on the road and that when he ran for water he would almost invariably take his train along with him.

The tall man whose name has since become a synonym for *locomotive engineer* was never known to dawdle at water towers, coal chutes, or cinder-pit tracks. During his lifetime, when the steam engine was king of the rails, the water tower was of regal importance. Many stories and poems, even a book, Homer Croy's *West of the Water Tower,* did honor to it.

The tank-car was one of the earliest ways of making water available where it was needed. A spout attached to one side of the car swiveled out and over the tender, and when you wanted to tank up, you scooped the water out with a bucket and poured it into the spout. The tank-car did the job, but its capacity was limited.

Wayside storage tanks were the obvious answer, but if you wanted simply to run the tender in under the

Philip A. Ronfor

**No. 319 at Stoner's Tank on the now-abandoned Rio Grande Southern. Marker on side shows tank was only a third full.**

tank and take on water as you would from a faucet, the minimum capacity line of the tank would have to be about twenty feet above the rails—and this meant the water had to be pumped in.

If you were lucky, you could dam a mountain stream, pipe it to a tank at a lower level, and let gravity do the rest. But the flatlands of the East and the Midwest have few mountain streams, and you had to resort to hand power, animal power, or wind power.

As long as traffic was light and the demand for water low, windmills were an economical solution, but once traffic picked up, a pumping device dependent upon the vagaries of the wind was too uncertain. Before gasoline and electricity came into use, steam pumps worked well, though unless they were operated in conjunction with a steam plant maintained for other purposes —heating a shop, say—they proved to be expensive. But, whatever the cost, the railroads often had no choice about using them.

In 1905, for instance, the Great Northern was using both a windmill and a steam pump at Penn, North Dakota. The tower was nearly sixty feet high with a forty-foot platform, above which the axle of the eighteen-foot wheel turned. The steam pump worked almost constantly, except in a strong wind or when the boiler was being cleaned; then the mill went back into service.

If the wind stopped while the mill was in operation, the water pumper, Torval Christenson, and his helper would have to climb to the platform and turn the great wheel by hand until it got going again. It was not easy. On one occasion Christenson's mitten caught on the great wheel, and he found himself being whirled out into space. Fortunately, his helper was able to lower him to the platform again before the mitten gave way.

UNLIKE those which followed, the earliest water towers were of solid construction and usually

David H. Mann

**Wooden cars were the earliest railroad water equipment. Crews poured bucketfuls into the carside spout which projected out over the locomotive tank.**

Missouri Pacific Lines

**A tank car between engines 124 and 40 provided water during the Missouri Pacific's last steam run a few months ago. Trackside tanks had already been scrapped.**

Santa Fe

**When a drought dried up Olathe, Kan., in February, 1954, the Santa Fe brought in more than 300,000 gallons a day to the town from Kansas City. The 30-car trains ran in on a spur south of the waterworks and released their water into Mill Creek.**

built to last as long as the rails they adjoined. The Erie's first such tower was an octagonal masonry structure covered by a shingled, cone-shaped roof and topped with a cupola. Counterweights balanced the spout when it was raised or lowered and held it clear when it was not in use.

But as the carriers stretched across the Appalachians and into the Great Plains and over the Rockies, it became evident that they needed towers they could dismantle as their needs changed and set up again in new locations. The Erie type was about as portable as the old Grand Central Depot.

And so the water tank as most of us remember it came into being. Trackside signboards reading, WATER 1 MILE, called it to your attention shortly before it appeared, towering hugely over forest or pond or plain. A wooden structure generally—cypress, redwood, yellow pine or fir—it was not ungraceful.

Iron or steel hoop bands spaced ever closer together from top to bottom held together the staves, tension turnbuckles on the hoops climbed in a spiral to the roof, and a gage down the side indicated how much the tank held. Water dripped down over the heavy timbers of the cribbing on which it rested, and dribbled from the spout or "goose-neck" which jutted at an angle from the track side.

Though the circle of the body sometimes flattened itself into octagon, hexagon, or square, most tanks were built to the same general pattern. Their roofs were their only frippery. Except in the Far North, where they kept the water from freezing, and in arid areas where they kept the staves from drying out, the only function a roof had was to keep leaves and other residue from settling inside. But these roofs gave the towers their individuality.

Romance and adventure gathered about them like the shadows they cast behind them in the desert sunset. Countless numbers of Western outlaws, from the James boys to the Wild Bunch, crouched in their shelter and listened for the rumble that signaled the approach of the Fast Mail. Furthermore, generations of hoboes loafed and spun their yarns and waited in the cool shadows of water towers to hop the rods when a freight pulled in for water.

Around them and because of them sprang up the tank town, destined to become in later years a symbol of isolation and backward provincialism.

When a locomotive stopped to tank up at these towers, the fireman scrambled over the coal in the tender, lowered the spout and opened the outlet valve. Sometimes, the cascade all but drowned him before the tank was full. In winter he had to knock icicles off the spout before the water would flow, and then it would come slopping out and spraying in the icy wind. During sleet and snow storms the job was dangerous, and even if the fireman didn't break his neck, he sometimes would develop rheumatism.

Years ago, when strike-breakers were running engines on the Hannibal & St. Joseph, union-minded Rock Island men would shove bars of soap up the spout—as a means of expressing their disapproval—whenever an engine on the St. Joe line was about to use a certain water tank that the two railroads shared. After a dose of soapy water, an engine would spew soapsuds all over the place and lie down like a hiccuping drunk to sleep it off.

Plenty of good engines dragged to a halt before the strike-breakers discovered what was happening and decided to get revenge. A non-stop Rock Island passenger train, the pride of

the road, was the victim—and four bars of soap in the spout seemed the ideal prescription. It was. Soon after taking water, the patient bubbled to a stop. And so did this minor Rock Island war.

WHILE the wooden tank was generally adequate for the Nineteenth Century, railroads in the heavily industrialized and densely populated Northeast were beginning to have serious traffic snarls at congested water facilities.

Besides that, passenger trains were moving faster, and freight trains were growing increasingly heavy. Water stops slowed up the limiteds, while getting the heavy drags under way after tanking up was proving to be expensive, not only in fuel but in time. What was needed was a way of taking water without stopping the train.

And so track pans came into use. Borrowing an idea first applied twelve years earlier on England's London & North Western line, the New York Central installed the first track pans seen in the United States. The place was Montrose, N.Y., and the date was June, 1870.

A track pan is a metal trough about 19 inches wide and 8 inches deep, filled with water, and set into the ties between the rails. To take on water, the fireman lowers a scoop from the tender into the trough. The speed of the train then forces it up the scoop and into a large inclined pipe which empties into the water compartment.

The Montrose pans were an immediate success and other roads began to copy them. But with the fairly recent ascendency of diesel power track pans passed out of the railroad picture. Pans were usually located about forty miles apart, preferably on tangents, but operation was practical on curves up to three degrees. The Pennsylvania had the longest, two 2600-footers, at Wilmore, Pa. The speed of pick-up ranged from a minimum of 30 miles an hour to over 80, while anywhere from 1.5 to three gallons of water could be taken aboard for each lineal foot of pan. It was a spectacular operation to watch. When the scoop hit the pan, water shot out in a spray from either side of the tender wheels like the wings of a white bird.

But trackpans had only limited utility. The old wooden towers were still, on the whole, the most serviceable and economical watering device, and they remained so until changing conditions tumbled them to the ground.

But they had their defects. They developed leaks, they even caught fire, and they had the comparatively short life-span of twenty years. Also, wood isn't sturdy enough to contain much more than 100,000 gallons, and conditions kept calling for larger structures. Thus steel tanks came into use, not so much to replace the wooden ones as to supplement them, to do the jobs the older tanks were not suited to do.

There are, roughly, three types of steel water towers. One type, essentially a wooden tank design made in steel, has a flat bottom set on a steel tower. Another, the most common variety, has a conical roof, a cylindrical body, and a conical or hemispheric bottom connected with a central supply pipe and supported by from four to eight steel stilts.

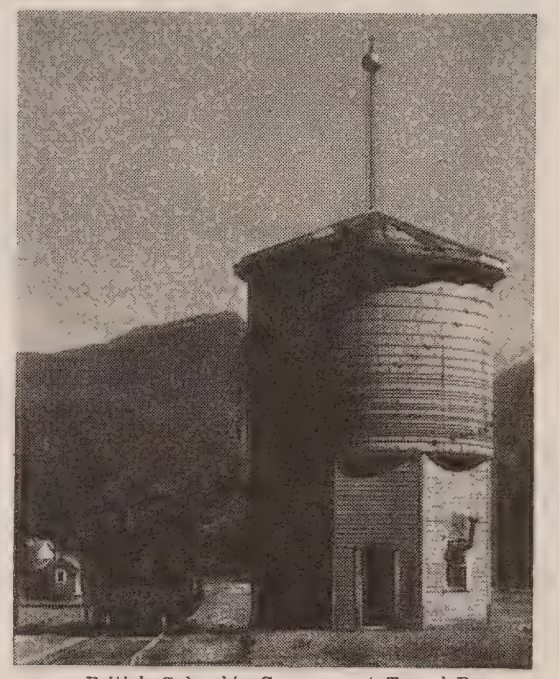
The third type, known as a standpipe, is a steel cylinder, often as high as sixty feet, set on a reinforced concrete base. Elevated tanks are used chiefly for local water supply and general service, while standpipes serve for storage, treatment, or both at water-treating plants.

Concrete standpipes and elevated tanks have also been built but have not been wholly satisfactory. Expensive to erect and hard to waterproof, they tend to crack under the strain and stress of changing temperatures. Their big advantages are their permanence, durability, and low cost of maintenance.

By 1949 American railroads had 26,000 water towers in service, 18,000

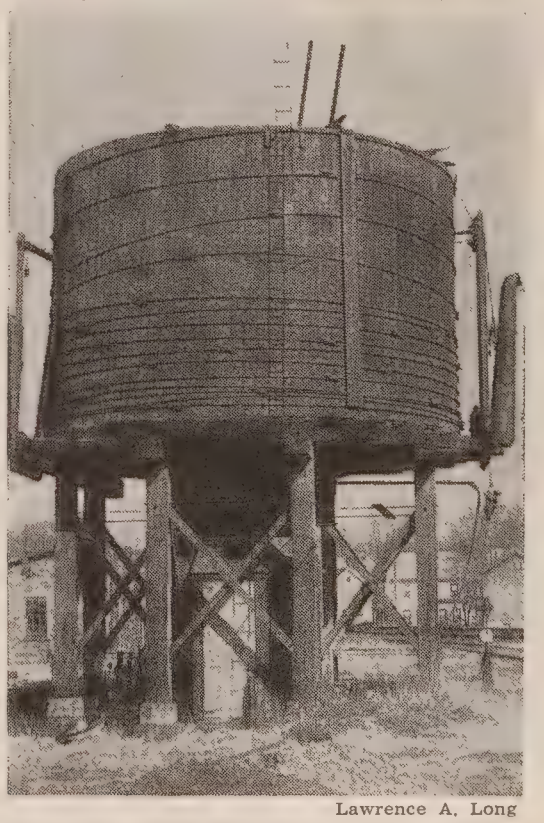
Ernie Plant

**Old Northern Pacific locomotive tender served as trackside tank at Seattle.**



British Columbia Government Travel Bureau

**Enclosed substructure on Pacific Great Eastern tank holds heating equipment.**

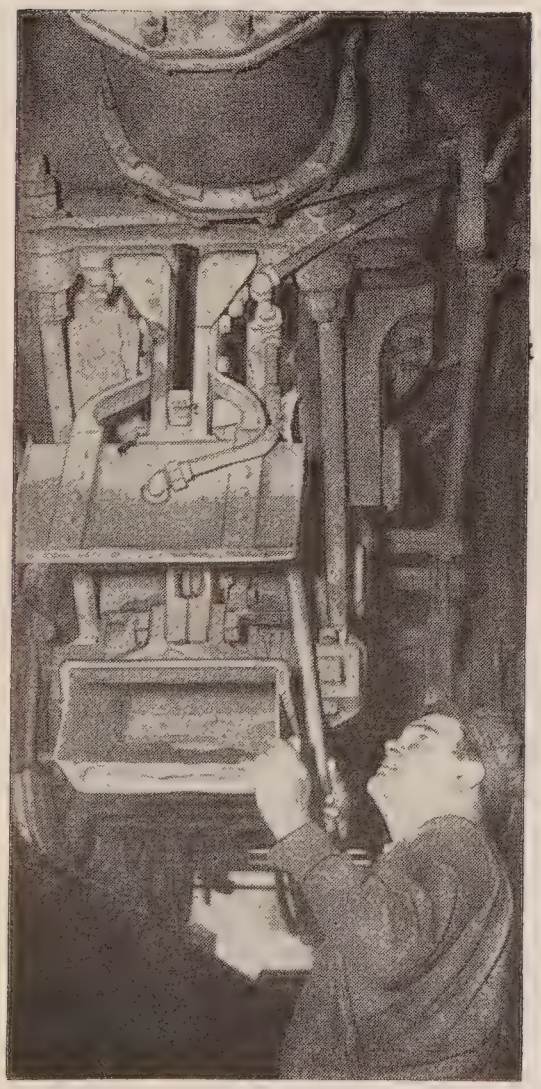


Lawrence A. Long

**Abandoned Middletown & Unionville tank had spouts for servicing two tracks.**

E. P. Alexander

**Trackpans, troughs of water set into ties, permitted engines to scoop up water on the fly. Operation was practical at speeds above 30 miles an hour and on curves of up to 3 degrees. Some pans were a half mile long. (Above) Pennsy's Radnor station.**



New York Central

**Fireman lowered scoop ino trough, and speed forced water up into the tender.**

E. P. Alexander

**No. 3035, with *Pennsylvania Limited*, jerking water at Radnor, Pa., in 1912.**

of them wooden, 7000 steel, and the rest concrete or wrought iron. With increasing dieselization the total number has dwindled sharply.

The water column, a vertical pipe topped by a horizontal pipe and spout, is often used instead of a tank, generally where water under pressure is readily available. Economical and efficient, it is ideally suited to service wherever there is no room for trackside tanks—at stations and terminals, say, or between double tracks.

WATER, strangely enough, is one of the worst things you can put in a boiler—at least in its natural state. Given a chance, it will dissolve almost anything. In falling as rain or snow, it absorbs gases and in seeping through the earth it picks up mineral, animal, and vegetable matter. Dump such a concoction into a locomotive boiler, and you're letting yourself in for trouble—burned-out crownsheets, doused fires, boiler explosions, interrupted service.

Thus, as a safety precaution, ICC regulations require that boilers be inspected and, if necessary, washed out every thirty days.

In its raw state, water causes scale formation, foaming, corrosion and rusting, pipe-line incrustation, and

cracking. Fortunately, most of these hazards can be minimized through the use of filter systems and chemicals.

Chemical treatment came into use in 1891 when a Milwaukee Road general shop foreman, "Soda Ash Johnny" Horan—who died in 1938 at the age of 100 with an amazing 83 years of railroad service under his belt—added soda ash and lime to hard water to increase its alkalinity and thus eliminate or at least reduce corrosion.

But the composition of water varies from day to day and from season to season, and frequent tests are necessary. In the old days, you tested it by adding a few drops of a soap solution until you got a good lather. If you needed too much soap, the water was too hard, and you added more lime and soda ash. But if you added too much, the water would foam in the boiler, and the engine would sputter to a halt. Comprehensive systems of blowing on the line and at terminals minimized this danger.

Today, locomotive water is more carefully treated, tested, and softened than the water you get from the kitchen faucet. Water treatment is expensive, but nowhere near so expensive as a boiler explosion or a burned-out crownsheet.

When you realize that the Norfolk & Western, for example, removes over 12 million pounds of scale-forming compounds from the 7.5 billion gallons of water it uses each year, it becomes clear that water treatment is no bush-league operation.

But even finding any water at all, much less rendering it usable by treatments, has been a real problem. Recurring droughts since 1929 have forced the railroads to rely less on surface water—reservoirs, streams, lakes, springs, surface wells—which in any case frequently require heavy treatment, and more and more on ground water from deep wells.

Locating a well is difficult even under favorable conditions. The chances of finding water are best in areas where wells already exist. Where you already have a well it is not likely to be where you most need one, and it's a costly job to drill dry holes in the ground.

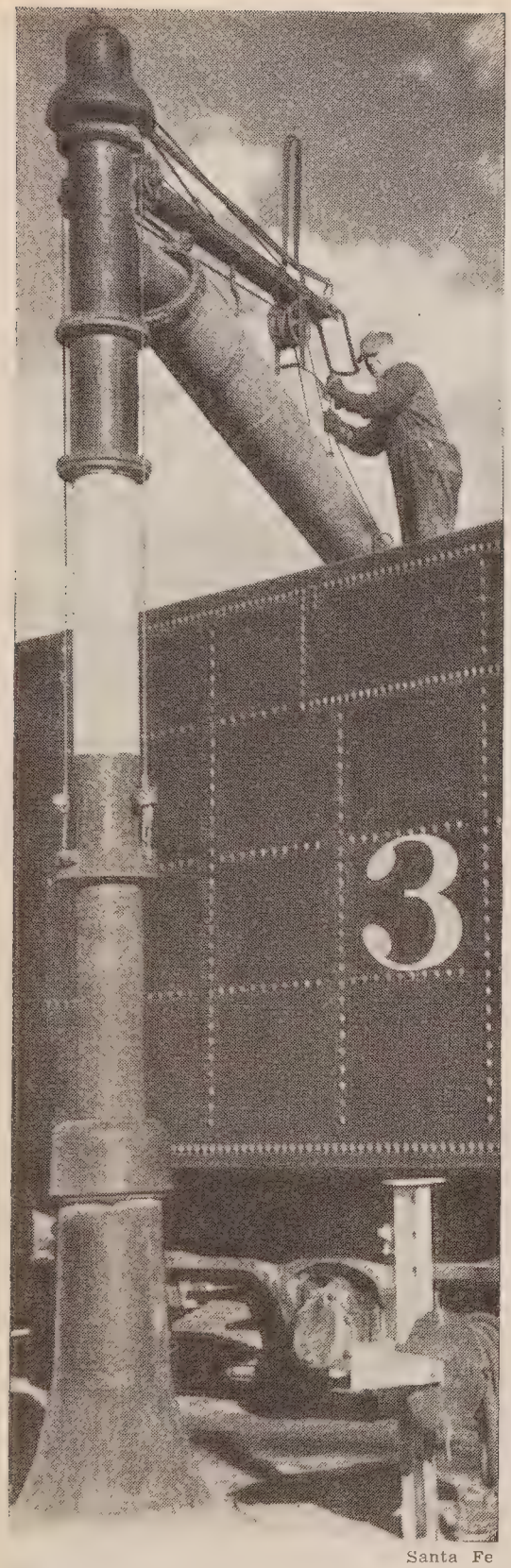
Oldtimers, though, may offer you an easy way out. Hire a water witch, they urge, a clairvoyant of sorts who holds the legs of a forked stick in his fingers and wanders over the countryside until the fork points downwards. The authoritative *Railway Engineering & Maintenance Cyclopedia* naturally frowns on this practice as unscientific. Water witches, says the *Cyclopedia,* "are a fallacy born of the superstitions of the Middle Ages when a similar device was resorted to in an effort to detect criminals, but resulted only in the persecution of the innocent."

And so, when the Missouri Pacific needed a new well near Osgood, Kansas, a few years ago, the company very properly refused to employ the water witch who had located the only producing well the neighborhood boasted. Graybeards scoffed, sneered, and shook their heads. But the MoPac had the *Cyclopedia* to back it up. It sank one well, and then another, and then several more, and found no water—none at all, anywhere.

But even when water sources are plentiful, the problem of making it available where it is needed on the line remains. You would expect the Tonopah & Tidewater running through Death Valley to have added a tank car regularly to its tender, but not the Florida East Coast on its now-abandoned overseas line to Key West. In the latter case there was water on either hand, but it was all salt, and so the FEC regularly carried wooden

H. C. Dore.

**Silhouetted against the evening sky, a Jersey Central fireman took on water at a column in Newark, N. J., in the days before diesels drove steam from the rails.**




Santa Fe

**Water columns are ideal between tracks in terminals. Santa Fe owns this one.**

tank cars on all its trains, to supply both its locomotives and the islands along the way.

Out West, surface wells and other water sources are almost uniformly bad, and so in the early days coal cars were converted to tank cars and several were added to every train. In New Mexico, the Santa Fe worked out a partial solution by laying 170 miles of fourteen-inch wooden pipe from the mountains. The Tonopah & Goldfield piped water fifteen miles into Goldfield.

Today, the Southern Pacific still regularly operates three tank cars to supply water to various stations en-route. On its Moose Jaw Division, the Canadian Pacific runs an extra tank car on its mixed train and its way freights, as well as a number of cars every now and then to provide station agents with water. And only a few months ago, when steam was used for the last time on the Missouri Pacific, a tank car went along on that last run to the scrap yards, because, with dieselization, all wayside tanks had been retired.

GIVEN time, the railroads have little difficulty in keeping abreast of their normal water problems. It's the unexpected shortages resulting from fire or drought or other disasters that cause the real trouble.

In the Middlewest, hot dry winds rolling off the prairies can play havoc with surface supplies. MoPac's 240-million-gallon Lake Barton reservoir has been known to lose more than a million gallons a day through evaporation! No wonder that many railroads in the days of steam kept a staff of experts with their weather eyes peeled on rainfall, hot winds, and signs of drought.

During the fall of 1939 a dry spell struck the Midwest with disastrous consequences. Trains were regularly double-tanked. At Webster City, Iowa, pumps could draw water from the river only at night because civilian consumption was so great that the river went dry during the day. Even the Mississippi shrank from its banks, and sea water backed up the river for more than 200 miles, far above New Orleans, contaminating normal supplies. The shortage was so acute that the Missouri Pacific even installed pumps and pipe lines to recover waste water from a sewage disposal plant. But the railroads, almost alone, were relatively prepared for the drought. Time and time again they relinquished their private supplies to much-harder-hit municipalities and industries.

In 1945, when a dry summer and fall exhausted the water supply at Moose Jaw on the Canadian Pacific, fifty tank cars a day were rushed in from Swift Current until the emergency ended. Under similar circumstances in February, 1954, the Santa Fe began running a daily thirty-car water train into Olathe, Kansas, from Kansas City, bringing in more than 300,000 gallons per trip to replenish the town's reservoirs.

In winter, tanks are generally used often enough to prevent them from freezing solid. Tank outlet valves have a tendency to freeze up, but a dose of live steam usually loosens them up. Stored in a self-draining position, spouts can never freeze solid.

Our railroads also have an impressive record for split-second timing in the event of fire. A few years ago when a fire threatened the business district of Herrick, Illinois, at a time when the city water supplies were exhausted, a Nickel Plate freight pulled in with 15,000 gallons in its tender and saved the day.

The same thing happened in 1927 at Balkan, Kentucky, when two Louisville & Nashville engines arrived just in time to stop the offices and company houses of the Virginia Harlan Coal Corporation from going up in smoke. There are countless other instances—including the one in which Jim Root's fireman, during that famous run through the Hinckley forest fire of Minnesota in 1894 ducked into the water tank of his blazing locomotive to dodge the flames and sparks.

When diesels appeared the scope of the water service began to shrink. Diesels use very little water—one of their most attractive features to railroads operating in the water-scarce West—and what they do use goes, not into the engine cooling systems, but into the steam boilers used to heat the cars. Water-service stations between terminals have gradually become unnecessary, and one after another they have been retired. When the Northern Region of the Gulf, Mobile & Ohio, then the Alton, was

dieselized some years ago, the road abandoned six boiler washout plants, 44 water stations, and 40 water-treating plants.

But the diesel merely accentuated a trend that had begun long before. As larger steam locomotives were built, tender capacities increased to over 25,000 gallons. Thus engines could make longer runs without stopping for water, particularly when auxiliary tenders were also added. This generally increased the load on terminal facilities and correspondingly decreased it on wayside tanks. As a result, between 1915 and 1940, many large railroads had already retired as much as twenty-five per cent of their water stations. During that period, the Santa Fe, for example, closed down 265 out of 808.

Today, as dieselization progresses throughout North America, towers that once served the railroads are being torn down or abandoned, or given to the tank towns they had brought into being. Only recently, the Rock Island donated three lakes, once used to supply its steam engines, to the town of Santa Rosa, New Mexico.

And so the signs and symbols of a great era in railroading are slowly disappearing. Water still has its place in railroading—in washing equipment, heating trains, and cooling engines—but it is an increasingly less important one. Last year, the Lackawanna's Hoboken Terminal used only 21 million gallons. Thirty years ago it consumed more than that in less than a week. And those statistics tell the story as well as anything can. ●

**Overhead view of a Union Pacific steam locomotive taking on water from a trackside column. Maybe some reader can identify the location. As time goes on, you'll see fewer and fewer nostalgic sights like this one.**

All photos by A. E. Allen

**Panoramic view of mud-slide on the Northern Pacific near Missoula, Mont., showing six cars.**

# WRECKER CREW

## *You've Got to Mix Brains with Sweat and Dirt When You Work with the Big Hook*

TRUE TALE **by A. E. ALLEN**

IT WAS a mud-slide that tied up eastbound Northern Pacific freight No. 612. She was winding slowly along the high, sweeping banks of the Clark Fork river, going slow—on orders—because the slide danger was high. It was a wet spring following a warm winter, the ground hadn't frozen, and the clay cuts above the track were soggy.

The engine had just emerged from a short tunnel, tunnel 7, when the brakes dynamited—which meant that the train's air line had broken. The train found the trouble forty cars back. Three or four boxcars were sprawled on one side of a large mass of mud which covered the track.

But worse was coming.

The brakeman shut off the hissing air line on the last car next to the wreck and started to walk away. Suddenly a big gob of mud broke loose from the slope above and hit that last car, the one he'd just left, boosted it gently from the rails, and rolled it down the embankment for a hundred feet.

The train crew got the front half of their train moving in a hurry and headed east.

Within a few minutes phones were jangling in the division office at Missoula, Mont., in St. Paul, headquarters of the railroad, and in the home of Karl Knudson, Missoula wrecker foreman.

Karl, a quiet fellow who works at the Missoula car shops rebuilding cabooses and outfit cars, had just got home from work. He listened to his orders and then called his seven-man

wrecker crew. His men had also been at the shops: changing wheels and replacing broken couplers, draft gears, brake beams, triple valves, lug castings, and the other assorted hardware that wears out or gets knocked to pieces on a railroad's rolling stock.

The wrecker crew are volunteers, family men who need the overtime pay. They get two or three or a dozen calls a year—but Karl hasn't been to a movie for years without first phoning the Super's office and telling where he's going.

The wrecker train got on the road at 7:30 P.M., after taking on coal, groceries, and a trainmaster who arrived with coattails flapping.

West of Missoula, the Northern Pacific line splits with a "low" line along the river for freights only and a "high" line over the mountains for passenger trains. The wreck was on the "low" line, but, in order to approach it from the west, the wrecker had to take the long way around, over the high line and back from the west on the low line. Wrecker trains travel slow, and the 100-mile trip took all night.

BY DAWN the wreck lay dead ahead, the boxcars sprawled grotesquely in the curling morning mist like bodies on a deserted battlefield, and quiet—so quiet you could hear the spring wet trickling down the hillsides to the river.

The first job was to clear the line and lay new track.

Karl Knudson stared at the mud and said, "This is going to be the longest, most drawn-out process we ever got into."

A couple of bulldozers, hired from a nearby logging outfit, wallowed into the mud, tried to push it from the tracks, and ended by pushing each other. One of the dozers had to be pulled out by the wrecker's hook. At last one of the catskinners, pulling the mud backwards with the *back* of his blade, began eating a slow path into the mud, which, fortunately, was soft.

The wrecker crew didn't have much trouble with the first boxcar. It was coupled to a car half-buried in mud, but it was only partly derailed. The men cut the coupler with an acetylene torch, dragged the car a few feet ahead with the wrecker, and got out the frogs. A frog is a big, ungainly piece of iron with a rounded back which is spiked to the ties in such a way that when a derailed car's wheels are pulled against it they ride up over it and slide onto the rails.

The men put the frogs in front of the derailed trucks, spotted the wrecker two car-lengths away, hooked on, and pulled. The wrecker chuffed, the car groaned, moved, and crashed down onto the rails. It went too far. One pair of wheels dumped off on the other side. The frogs were reset on the other side and the wrecker gave another pull. This time the car stayed on.

In a few minutes the whole wrecker train with the re-railed car in tow began moving toward a siding several miles away.

Only one other car partly blocked the line, and the wrecker dragged it off to one side. The wrecker crew's work was finished for the time being. The show now belonged to the gandy dancers, the roadmaster, and the two bulldozers, who worked feverishly to put the line back in operation.

The gandies got some excitement their first day on the job. A mob of them had arrived at the east end of the wreck on a short work train consisting of engine, flatcar, and caboose, and the train was parked a hundred yards from the wreck. That afternoon another gush of mud came down the hill, swirled under the flatcar, and pushed one end of it off the track. Everybody stared goggle-eyed. Five seconds later, somebody jumped out of the middle of the train and scrambled along the embankment like a scared rabbit to get in the clear.

The gandies spent the rest of the afternoon digging the mud from under their flatcar and frogging it back on the track. At first they stopped often to stare apprehensively at the naked slope above them. Mud comes quickly and silently, and they wouldn't have had much chance if more had come down. (More *did* come down later in the spring.)

With the flatcar in the clear, the gandies got back on the track, and the wrecker crew helped by pulling the old rails out of the mud with their hook and carrying new rails.

At night the wrecker train goes to

**Two wreckers chuff and pull as 50 tons of boxcar slide through the mud.**

**Karl Knudson, wrecker foreman, is giving engineers the signal for a pull.**

the nearest town to tie up and take on coal and water. The crew eat supper in their own kitchen car, with one of the car toads as cook. George Melder can cook all right, and he whips up a salad, roast beef, potatoes and gravy.

After supper some of the crew retire to the bunk cars. Some of them head for the bars in town. Karl Knudson, the quiet foreman, heads for his bunk. But George Melder, the cook, goes to the hotel to phone his wife, this being the first night out. He comes back to the Ace of Diamonds bar and reports the first thing she asks him is, "What bar are you calling from?"

"But, honey," he tells her, "I walked clear to the hotel so I could call from where there wasn't any juke box."

That night when the men get back from town, they hear Karl Knudson talking in his bunk. "Bring me the single" (the single hook on the wrecker), he says, and goes on muttering in his sleep.

AFTER TWO DAYS, the brass called off the wrecking operation. There were still four boxcars in the mud, but the new track had been laid. A few local freights were sent over the low line as an experiment. No fresh slides occurred. In the meantime the main freight traffic (the Northern Pacific handles about half the rail freight between St. Paul and Seattle) had been humping it over the

**Desperately the section crew heaves their caboose out of the way of a mud-slide. Two minutes before, a fresh slide had hit their work train, derailing the flatcar. Big wreck occurred about 200 feet ahead of engine shown here.**

high line, the passenger line, running with short, fifty-car trains and three locomotives to make the grades.

On a Monday Karl and ten other men were ordered back to the wreck with a longer wrecker train and two wreckers, the 81-tonner and the 188-tonner. The dirty work of picking up cars was about to begin.

Working on a railroad wrecker may sound glamorous to an outsider, but it's not. The cold, sober truth is that the crew spend most of their time dragging the large, awkward hook ahead to make a pull, or carrying dozens of wooden blocks to make a roadbed for the derailed car. They use lots of blocks at a wreck, especially if there's a car a few feet from the track with its wheels still under it, and once the car starts to roll back to the track, the blocks from behind have to be carried ahead to continue the process. It takes a lot of block-carrying.

A few dozen more blocks are used under the wrecker outriggers. The outriggers have to be set every time the wrecker makes a pull, to brace it from rolling forward or tipping sideways. Even when the wrecker is moved only a few feet, which often happens, the blocks have to be unpiled and repiled.

There are cables to carry. For a taste of the glamor of that, try lifting and handling a 20-foot length of two-inch steel cable sometime.

But there are moments that come close to glamor, after all, when the two wreckers have been hooked onto a car in the mud, the white steam plumes up, the wreckers go chuff-chuff-chuff, and fifty tons of boxcar slides through the mud.

Then Karl Knudson waves his arms, the cables slack off, and the block-carrying begins again.

They dragged the first car ahead a couple of car-lengths to solid ground. Then they dragged the trucks out of the mud. The trucks were a mess: there was mud in the springs, mud in the journal boxes so that the wheels wouldn't turn. The wrecker crew swarmed over the trucks, wiped and scraped the mud off.

Only gravity and a center pin hold a freight car on its trucks. If a car gets rolled in a wreck, the body and the trucks go their separate ways. But

**Men watch tensely as boxcar is lowered onto its trucks. The truck's center pin has to meet the hole of the center plate in the bottom of the car.**

if the two come apart easily, fortunately they can also be easily put back together. The important thing in setting a wrecked car back on its trucks is to place the cables right, so that the car won't twist in the air when it's lifted.

Karl took great care in supervising the placing of the cables. They had to pass under the center sill of the car just back of the coupler. They had to come up around the corners of the car just so, with the cable eyes meeting behind the end of the car. The wrecker hooks were hooked into the cable eyes.

Both wreckers lifted slowly, slowly, with everybody watching expectantly. When the boxcar was dangling four feet off the ground, Karl made a quick, horizontal motion with both arms, then waved to the right. The boxcar slowly swung in over the track. Alex Schwartz, Mel Rice, and a couple of other men sprang forward and rolled the trucks under the ends of the dangling car.

One end of the car was let down

at a time, slowly, while the men watched to see that the center pin in the truck entered properly the hole of the center plate in the bottom of the car. Then the cables slacked off, the truck springs sagged, and the boxcar was sitting on its own wheels on the rails again.

The second car was put back on the track in the same way.

Then the wrecker train banged and switched for three hours before tying up for the night, while George Melder cussed and tried to control the slopping stew on his cookstove.

THE WORK goes about the same on Tuesday.

Two men in the wrecker crew, or four if two wreckers are used, are immune from the block-carrying and mud-slogging. They are the wrecker engineer and the fireman. Bill Flory, engineer on the big wrecker, handles the controls of his 188-ton machine as casually and confidently as you handle those of your automobile. (When his cab is swung around so that he can't see Karl, someone stands on the wrecker platform and relays Karl's signal to him.)

In a dark compartment in the back of the wrecker, the fireman shovels coal, watches his gages, and occasionally peers out to see what's going on.

The wrecker itself, a big, black machine with a 40-foot boom, carries 750 gallons of water and 2,500 pounds of coal to feed its two-cylinder steam engine. It has two hooks, a single for dragging cars and a double for heavy lifting. The wrecker can lift 250 tons, or one end of a Z-5 locomotive.

Wreckers don't move under their own power. There's always an engine coupled to the train with an engine crew on duty, and a brakeman and conductor to give signals.

Tuesday: One of the wrecked cars was slewed over on its side and had to be righted by pulling with the cables in a rolling hitch.

The last car was the one down the bank. A section crew unloaded the lumber it carried, and three Caterpillar tractors strained and heaved to drag the car up an inclined road to the tracks. There was some momentary excitement when one of the Cats caught fire and water from the wrecker boiler was pumped on it. Then the wrecker hook was brought into play to help drag the car up the steepest part of the hill.

By late Tuesday night the wrecker train was rolling back to Missoula with four mud-soaked boxcars in tow.

It hadn't been much of a wreck, but it had its moments. The moment I like to remember is when four men were carrying the hook through the mud, and Louie Lehr, who is considerably well upholstered, got one foot and then the other stuck in the mud, and finally lost his balance and sat down. It took a man on each side to hoist him to his feet again, and Alex Schwartz laughed for five minutes.

The wreck was good for a chunk of overtime. Railway carmen make $1.99 an hour, Karl and his wrecker engineers get 9 cents more, and the overtime rate is, of course, one and a half times that. The payoff was about $200 per man, to boost the paycheck and the income tax.

Car toads like to get together and talk about the epic wrecks of the past. The longest, most hectic session that the Missoula crew ever had was in the spring of 1942.

It began with a lumber train wreck near St. Regis. There were thirty cars and the engine off, in the ditch, as they say, and lumber scattered all over the place. The wrecker from Livingston, Montana, was called to help.

Then the Missoula wrecker was called to another wreck at Rivulet with eleven cars in the ditch.

They'd just gotten one of the eleven picked up when they were called to still another wreck on the Bitter Root branch line. An engine had gone through a washed-out bridge, killing the train crew.

The Livingston wrecker was called down to the Bitter Root wreck to pull the bridge span out of the river. Somebody miscalculated and tipped the Livingston wrecker into the river.

Then the Missoula wrecker had to pull the Livingston wrecker (after it had been cut to pieces in the river with acetylene torches) and pick up the remains of the three train wrecks. The crew was on the road for a month.

The most spectacular recent wreck happened at Quartz on the low line in 1952. A freight was passing through a tunnel when a gondola derailed. Within seconds three cars were jammed against the mouth of the tunnel and twenty-one more cars behind them were dumped off the tracks. That was a tough one.

Another wreck at Quartz in '48 is remembered fondly by the Missoula crew as the beer wreck. One of the cars was a slightly damaged reefer loaded to the ceiling with cases of beer. Railroad detectives were on hand to see that the beer was properly unloaded for reshipment to its destination, but in spite of their vigilance something seemed to be wrong with the section hands. They staggered, they passed out, and whenever a freight went by, numbers of them deserted and hopped aboard to head for the nearest town. It's not recorded that any of the wrecker crew passed out, but they still smack their lips when they talk about the wreck.

Another wreck the Missoula crew handled involved several carloads of bing cherries. For several days the crew waded ankle-deep in the fruit, enveloped in the sweet and increasingly penetrating smell of fermenting cherry juice.

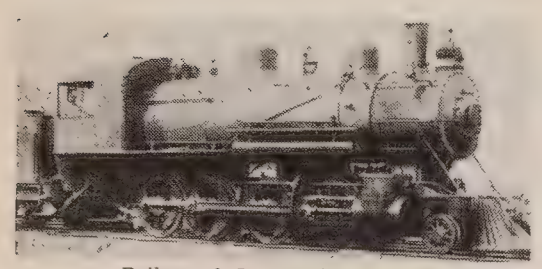
There are many more freight than passenger cars on the road, and so, as you'd expect, most railroad wrecks involve freight trains. Besides that, passenger cars are heavier and better built: they have roller bearings, and snubbers and stabilizers in their trucks to control the bounce and sway of the car. An ordinary freight car costs $4,000, and an ordinary passenger car $30,000.

Karl Knudson has been wrecker foreman since the end of 1952. It's a tough job. Karl is probably more quiet than a boss should be. He doesn't give many orders. He starts to do a thing himself, and then the other men follow him. Of course, Karl and his men have worked together for years, and they *know* what to do.

When you come down to it, the wrecker crew's work isn't very exciting. Yet there's something about it. You can notice it with any man in the crew, when you phone him at night and he answers the phone with a slight tension in his voice, "Hello?" ●

David Martindell
**No. 79 at Wichita Falls, Tex., 1938.**

# Locomotives of the Fort Worth & Denver



Railway & Locomotive Historical Society
**Richmond built the 259 in 1907.**

J. W. Maxwell
**FW&D-CB&Q motor-car, Wichita Falls.**

A. E. Brown
**451 smokes through Sunshine yard, Tex.**

## Steam

| Number | Builder | Date | Type | Cylinders | Drivers | Boiler Pressure | Weight | Tractive Effort |
|---|---|---|---|---|---|---|---|---|
| 1-2 | Schenectady | 1881 | 4-4-0 | 17x24 | 60 | | | |
| 3 | Danforth & Cooke | 1881 | 4-4-0 | 17x24 | 57 | | 42,200 | |
| 6-8 | Danforth & Cooke | 1881 | 4-4-0 | 17x24 | 57 | | 42,200 | |
| 9-10 | Cooke | 1885 | 4-4-0 | 17x24 | 54 | | 48,650 | |
| 11-12 | Cooke | 1886 | 4-4-0 | 17x24 | 60 | | | |
| 13-16 | Schenectady | 1886 | 4-4-0 | 17x24 | 63 | | 48,450 | |
| 17-20 | Cooke | 1887 | 4-4-0 | 17x24 | 60 | | 48,650 | |
| 21-22 | Schenectady | 1886 | 2-6-0 | 18x24 | 52 | | 78,500 | |
| 23-24 | Schenectady | 1887 | 2-6-0 | 18x24 | 52 | | 78,500 | |
| 25-26 | Cooke | 1888 | 4-4-0 | 17x24 | 60 | | 48,650 | |
| 27-30 | Rhode Island | 1888 | 4-4-0 | 17x24 | 62 | | 52,000 | |
| 31 | Cooke | 1888 | 0-4-0 | 16x24 | 48 | | | |
| 32-33 | Cooke | 1888 | 2-6-0 | 18x24 | 52 | | 78,600 | |
| 34 | Schenectady | 1889 | 4-4-0 | 18x26 | 62 | | 62,000 | |
| 35 | Rome | 1888 | 4-4-0 | 18x26 | 62 | | 59,600 | |
| 36-37 | Schenectady | 1889 | 4-4-0 | 18x26 | 62 | | 62,000 | |
| 38 | Schenectady | 1890 | 4-4-0 | 18x24 | 62 | | 62,000 | |
| 39-40 | Brooks | 1889 | 4-4-0 | 18x26 | 62 | | 62,000 | |
| 50-51 | Schenectady | 1906 | 0-6-0 | 20x26 | 51 | | 145,000 | |
| 60-62 | Richmond | 1907 | 0-6-0 | 19x26 | 51 | | 138,450 | |
| 63-67 | Richmond | 1908 | 0-6-0 | 19x26 | 51 | | 138,450 | |
| 101-105 | Rhode Island | 1900 | 4-6-0 | 20x26 | 63 | | 118,000 | |
| 106-107 | Schenectady | 1902 | 4-6-0 | 18x26 | 67 | | 135,000 | |
| 108-109 | Schenectady | 1903 | 4-6-0 | 18x26 | 67 | | 135,000 | |
| 110-111 | Schenectady | 1903 | 4-6-0 | 18x26 | 67 | | 98,000 | |
| 150-155 | Brooks | 1906 | 4-6-0 | 20x28 | 67 | | 138,500 | |
| 156-157 | Richmond | 1907 | 4-6-0 | 21x28 | 69 | | 146,500 | |
| 201 | Rhode Island | 1903 | 2-8-0 | 20x28 | 57 | | 142,000 | |
| 202* | Rhode Island | 1903 | 2-8-0 | 20x28 | 50 | 200 | 158,875 | |
| 203-204 | Rhode Island | 1903 | 2-8-0 | 20x28 | 57 | | 142,000 | |
| 205* | Rhode Island | 1903 | 2-8-0 | 20x28 | 50 | 200 | 158,875 | |
| 206-211 | Rhode Island | 1903 | 2-8-0 | 20x28 | 57 | | 142,000 | |
| 250-252 | Rogers | 1906 | 2-8-0 | 20x28 | 57 | | 157,000 | |
| 253-262 | Richmond | 1907 | 2-8-0 | 20x28 | 57 | | 161,300 | |
| 263-265 | Richmond | 1908 | 2-8-0 | 20x28 | 57 | | 161,300 | |
| 301 | Brooks | 1906 | 2-8-0 | 22x28 | 57 | | 173,051 | |
| 302* | Brooks | 1906 | 2-8-0 | 22x28 | 50 | 200 | 200,854 | 40,418 |
| 303 | Brooks | 1906 | 2-8-0 | 22x28 | 57 | | 173,051 | |
| 304* | Brooks | 1906 | 2-8-0 | 22x28 | 50 | 200 | 200,854 | 40,418 |
| 305-309 | Brooks | 1906 | 2-8-0 | 22x28 | 57 | | 173,051 | |
| 310-311 | Richmond | 1908 | 2-8-0 | 22x28 | 57 | | 173,051 | |
| 312* | Richmond | 1908 | 2-8-0 | 22x28 | 50 | 200 | 202,204 | 40,418 |
| 313 | Richmond | 1908 | 2-8-0 | 22x28 | 57 | | 173,051 | |
| 314* | Richmond | 1908 | 2-8-0 | 22x28 | 50 | 200 | 202,204 | 40,418 |
| 401-410* | Baldwin | 1915 | 2-8-2 | 27x30 | 56 | 200 | 274,000 | 58,092 |
| 451-452* | Baldwin | 1919 | 2-8-2 | 27x32 | 56 | 200 | 319,500 | 62,949 |
| 454-455* | Baldwin | 1919 | 2-8-2 | 27x32 | 56 | 200 | 319,500 | 62,949 |
| 456-460* | Baldwin | 1920 | 2-8-2 | 28x32 | 56 | 200 | 320,000 | 66,640 |
| 461-463* | Baldwin | 1922 | 2-8-2 | 28x32 | 56 | 200 | 327,775 | 66,640 |
| 464-465* | Baldwin | 1922 | 2-8-2 | 28x32 | 56 | 200 | 334,445 | 66,640 |
| 501* | Baldwin | 1911 | 4-6-2 | 25x28 | 62 | 200 | 236,875 | 43,110 |
| 552* | Alco | 1920 | 4-6-2 | 27x28 | 66 | 200 | 296,775 | 46,890 |
| 554* | Alco | 1920 | 4-6-2 | 27x28 | 66 | 200 | 296,775 | 46,890 |

*In service. All but passenger locomotives 501, 552, and 554 are freight locomotives.
Weight on drivers is given for all locomotives except Nos. 106-109, 202, 302, 312, 314, and 401-554, for which engine weight is given.
The above roster, compiled from Colorado & Southern annual reports, builders' records, and Fort Worth & Denver motive power records, is unfortunately incomplete. It is virtually certain, for instance, that engines numbered 4 and 5 were built by Danforth & Cooke along with the others in 1881, though no records remain.

## Diesel-Electric

| Number | Builder | Date | Wheel Arrangement | Type | Cylinders | Wheel Diameter | Weight | Horse-power | Tractive Effort |
|---|---|---|---|---|---|---|---|---|---|
| 602 | EMD-GM | 1939 | B-B | | 6-8½x10 | 40 | 195,600 | 600 | 48,900 |
| 603 | EMD-GM | 1940 | B-B | | 12-8½x10 | 40 | 216,860 | 1000 | 61,710 |
| 604 | EMD-GM | 1942 | B-B | | 6-8½x10 | 40 | 191,890 | 600 | 47,970 |
| 605-606 | EMD-GM | 1946 | B-B | | 12-8½x10 | 40 | 247,800 | 1000 | 61,950 |
| 750ABCD-752ABCD | EMD-GM | 1950 | 4(B-B) | F-7 | 16-8½x10 | 40 | 916,020 | 6000 | 225,000 |
| 850-860 | EMD-GM | 1953 | C-C | SD-7 | 16-8½x10 | 40 | 317,480 | 1500 | 79,370 |
| 9980AB | EMD-GM | 1944 | 2(1B-1B) | E-5 | 12-8½x10 | 36 | 626,410 | 4000 | 100,000 |
| 9981AB | EMD-GM | 1952 | A1A-A1A-A1A-A1A | E-8 | 12-8½x10 | 36 | 673,560 | 4500 | 105,570 |

Nos. 602-606 are switch, 750ABCD-752ABCD (four units each) are freight, 850-860 are all-purpose, and 9980-AB-9981AB are passenger.
FW&D freight locomotives, like the Burlington's, are white with black lettering and a red stripe running along the center and front. Switch and all-purpose locomotives are black with harbor-gray stripes trimmed in red and a yellow and red trim around the frame. Housing on these engines bears the Burlington lines slogans "Way of the Zephyrs" on one side and "Everywhere West" on the other. Passenger locomotives are stainless steel.
This roster was compiled on the basis of reports from Charles E. Fisher, President, Railway & Locomotive Historical Society, and F. A. Smerke, Superintendent of Motive Power, Fort Worth & Denver Railway Company.

# INFORMATION BOOTH

***ASK BARBARA:*** **Railroad questions are answered here every issue by our research expert—as many as space permits. Top priority is given to subjects that seem to be of wide general interest. Address Miss Barbara Kreimer, *Railroad Magazine*, 205 E. 42nd Street, New York 17, N. Y. No replies will be sent by mail.**

1

**Question** *How does the French train speed of 207 miles per hour compare with American test runs?*

**Answer** The Pennsylvania claims to have made 127.1 mph for 3 miles through Ada, O., in 1905. That is America's unofficial train-speed record. Union Pacific holds the *official* record: 120 mph for 9 miles near Dix, Neb., in 1934. Here are other notable runs, not all of them universally accepted:

Philadephia & Reading (now P-RSL), 115.2 mph for 4.8 miles near Egg Harbor, N. J., in 1904.

New York Central & Hudson River (now NYC), 112.5 mph for one mile at Batavia, N. Y., in 1893.

NYC&HR, 109.35 mph for 7.29 miles near Macedon, N. Y., in 1903.

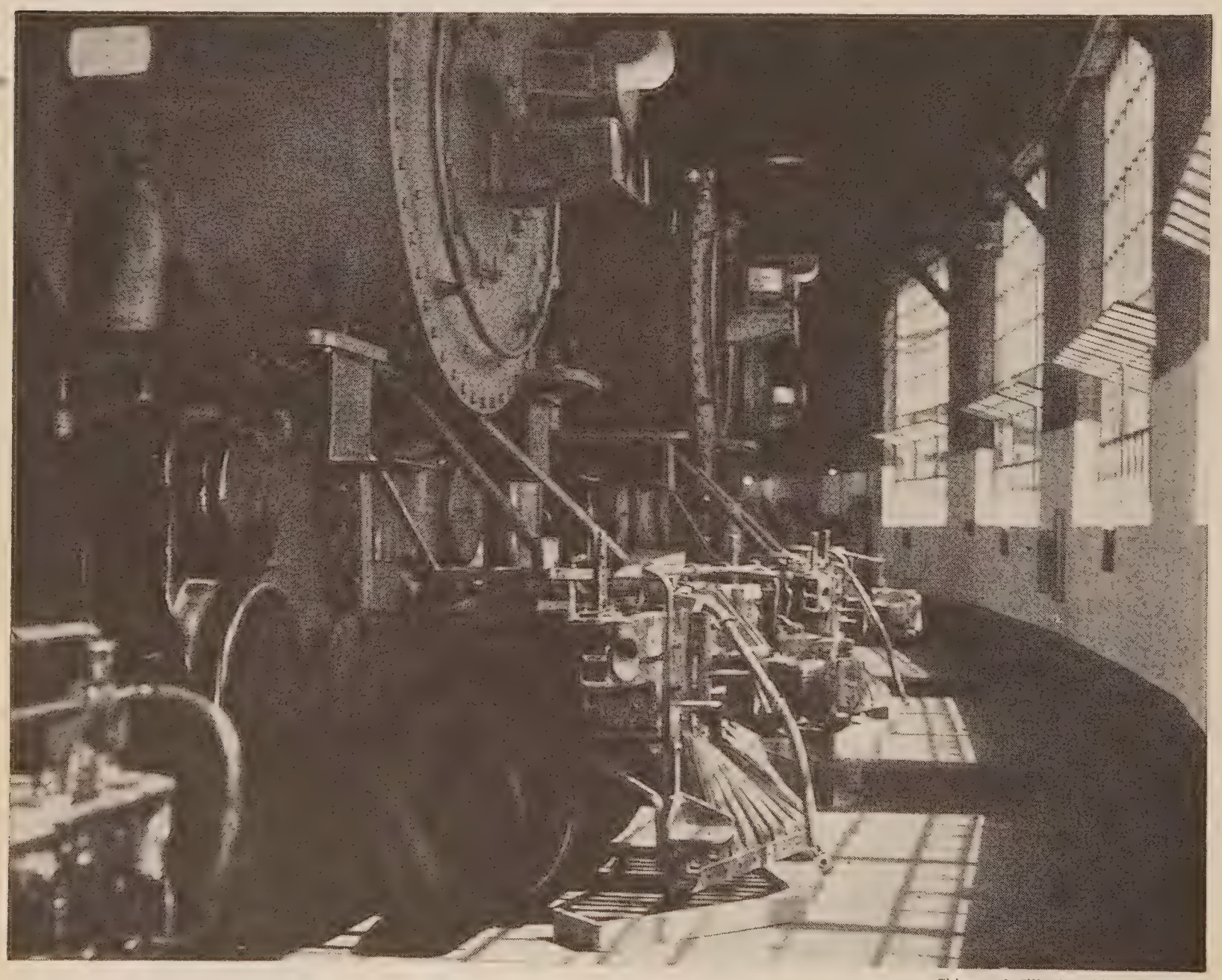
Michigan Central (now NYC), 105 mph for 2.73 miles at Crisman Lake in 1904.

NYC&HR, 105 mph for 3.51 miles near Groton, N. Y., in 1904.

Pennsy, 102 mph for 5.1 miles near Landover, Md., in 1895.

Burlington Route, 98.7 mph for 14.8 miles near Eckley, Colo., in 1902.

Chicago, Milwaukee & St. Paul (now



Chicago & Illinois Midland Railroad

**Monarchs of yesteryear on the Chicago & Illinois Midland faced the bright morning sun in Taylorsville roundhouse.**

CMStP&P), 92.52 mph for 61.4 miles, Edgebrook-Oakland, Ia., in 1934.

Very few trains on regular schedule have exceeded 80 mph. None that we know of has officially topped the current 86.2 peak of the Burlington's *Twin Cities Zephyrs.*

**2** *Diesels followed steam locomotives. What form of railroad motive power do you think will eventually follow diesels?*

Speaking for North America, we can't look that far ahead. In Great Britain, however, a modernization program provides for diesels being replaced by gas-turbine jobs. Mr. Moltson of the Transport Ministry recently told the House of Commons that gas-turbine engines may, in ten years, be hauling Britain's trains. We *could* make a wild guess and predict that the American locomotive of the distant future will be atomic-powered.

**3** *What is the approximate weight of the heaviest freight train?*

We don't know the record, but 15,000-ton iron-ore drags on the Duluth, Missabe & Iron Range must come pretty close to it.

**4** *Does the Long Island have air-conditioned passenger cars?*

Yes, the world's greatest commuter road is getting 140 new air-conditioned coaches for its electrified lines plus 92 for non-electric lines. Some of these have just been put into service. Except for two self-propelled Budd rail diesel cars, all are being built by Pullman-Standard at Worcester, Mass.

**5** *Was the old Utah & Northern the world's longest 3-foot-gage?*

Yes, in March, 1880, when it reached Montana Territory and boasted 290 miles. It is now a standard-gage part of Union Pacific.

**6** *I overheard an oil-burning locomotive fireman use the word* peep-hole. *What is it?*

Small circular hole in firedoor.

**7** *Why doesn't* Railroad *print the addresses of photo contributors?*

We used to, but stopped it because readers were making unfair demands upon them for free prints, etc. One fan went to a Canadian contributor's home after midnight and got him out of bed to ask about pix. However, we forward letters sent to contributors in care of this magazine—if we have the address and if a stamped envelope is enclosed.

**8** *What is a wood-rack car?*

A car used for hauling pulpwood to pulp and paper mills. Sometimes called a pulpwood car. The Southern has hundreds of them. Many are built with cast-steel underframes and cast-steel ends welded to the main frame. The

Erie Railroad

**Alco-built freight diesels of 6000 horsepower are now stabled in the Erie's old roundhouse at Hornell, N. Y.**

Southern Railway System

**Southern wood-rack car is designed to haul pulpwood from forest to factory.**

floors usually slope inwardly, ¾ inch to the foot, to stabilize the loading without need of wires or stakes. A rare type of pulpwood car is unloaded by tilting to one side and opening the floor to let the wood roll down into a river.

**9** *What is a dual-control switch?*

One that can be thrown by hand but is usually operated by remote control.

**10** *What was the last steam run on the Milwaukee Road's Idaho Division?*

Number 267 pulled a freight Extra West from Avery, Ida., to Othello, Wash., last Oct. 30. Line is now fully dieselized.

**11** *Which road has the most dome cars?*

Union Pacific with 39. The B&O has 5, Burlington 32, Great Northern 22, International-Great Northern 1, Milwaukee 10, Missouri Pacific 6, Northern Pacific 14, Rio Grande 6, Santa Fe 22, SP&S 2, T&P 1, Wabash 5, and Western Pacific 11.

**12** *(a) Recently I saw a New Haven electric locomotive in the Pennsy yards at Enola, Pa. How come? (b) What is the story behind Enola's name?*

(a) She may have been on a test run or perhaps enroute to the New Haven from the General Electric plant at Erie, Pa. (b) Spell the name backward. An isolated telegraph operator coined it.

**13** *(a) Is New York Central double-tracking all of its four-tracked mileage? (b) Does the Central have an underground connection to the Waldorf Astoria Hotel basement?*

(a) Nobody knows. The current project involves removing two tracks and installing CTC for 200-odd miles between Cleveland and Buffalo. (Passing tracks remain.) This will save on maintenance, taxes, and operating costs. When it is completed near the end of next year, passenger trains will run over it up to 80 miles per hour, freights up to 60. The CTC and double-tracking may then be extended to other sections, but no decision has yet been reached as to whether or not they will include all of the Central's four-tracked mileage. (b) Yes.

**14** *Do you know of any passenger named for a conductor?*

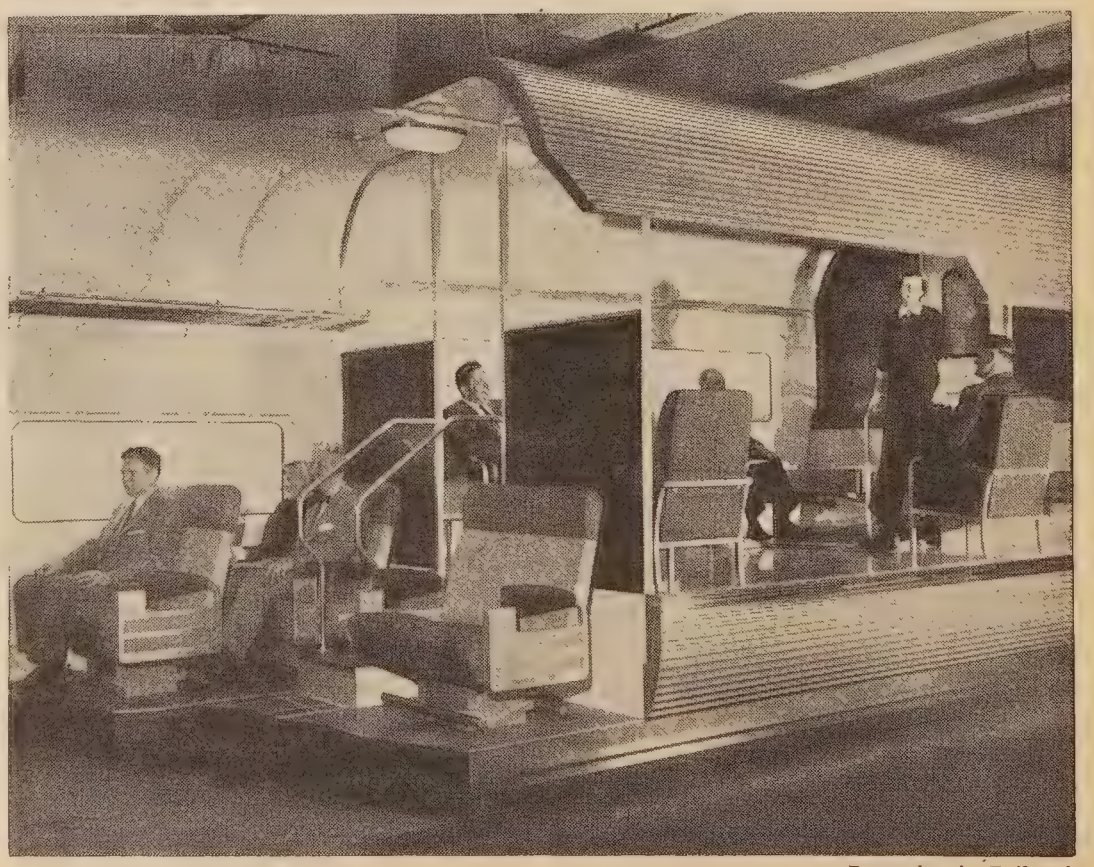
Yes, indeed. Venn Biscay Smith was named for Pullman Condr. William Venn, who assisted at his birth in the car *Biscay* and who later was put in charge of Pullman's Kansas City yards.

At least four Canadians bear the initials C. N. because their mothers were riding Canadian National trains when the stork showed up. And there's quite a story about Dickie Norwest Weaver Back in 1942 a Norfolk & Western passenger train was held at White Top, Va., 2 hours, 45 minutes, for a pregnant woman who needed a caesarean section. During all that time neighbors were dragging her on a farm sledge through 15-foot snowdrifts for five miles. The crew cheered when the sledge hove in sight. Then the train rushed her to a hospital for the operation. Her child's middle name is Norwest because, Mrs. Wade says, "if it hadn't been for the railroad.Dickie and I wouldn't be here today."

**15** *Are hotboxes still a serious problem in railroad operation?*

Yes, indeed. The overheating of journal boxes by friction is a costly and perennial headache. The problem is being studied for the AAR by the Armour Research Foundation of the Illinois Institute of Technology under the supervision of George L. Pigman. Mr. Pigman tells us that higher train speeds and greater acceleration, especially in connection with diesel locomotives, place more severe requirements on car bearings.

A survey showed that in a given month hotboxes occurred on an average



Pennsylvania Railroad

**Mock-up of rail-hugging tubular car. Full-scale model, shown in Penn Station, New York, dramatizes lowest-center-of-gravity train, now being built for PRR. Persons in the picture indicate the proportions of the car's unique design.**

of one for every 331,192 miles. "This means," he says, "that an imaginary car could have traveled around the earth more than 13 times before developing a hotbox. But when an occasional hotbox develops, it always means expensive delays and repairs."

Research is being conducted with a view to improving the fit of the bearing on the journal, improving the cooling of the journal box, and utilizing oil having greater viscosity at high temperatures than the oils now used.

Nearly 5,000 freight cars are now equipped with a new lubricating device which shows promise of materially reducing the hotbox problem. This is a muff type, put out by Miller Lubricating Co. It consists of a small, thick, textile-faced blanket surrounding a canvas-covered, springy, synthetic-rubber, honeycomb core. Our diagram shows how it is used.

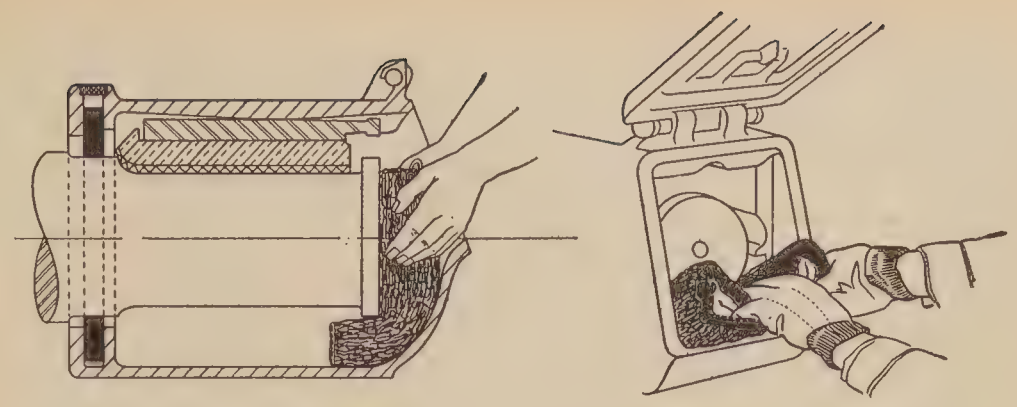



FIG. 1

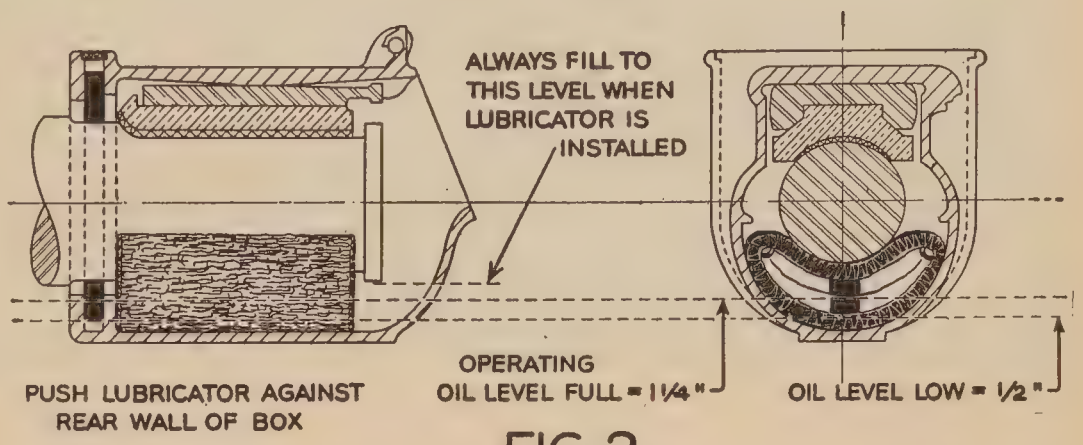

ALWAYS FILL TO THIS LEVEL WHEN LUBRICATOR IS INSTALLED
PUSH LUBRICATOR AGAINST REAR WALL OF BOX
OPERATING OIL LEVEL FULL = 1 1/4"
OIL LEVEL LOW = 1/2"

FIG. 2

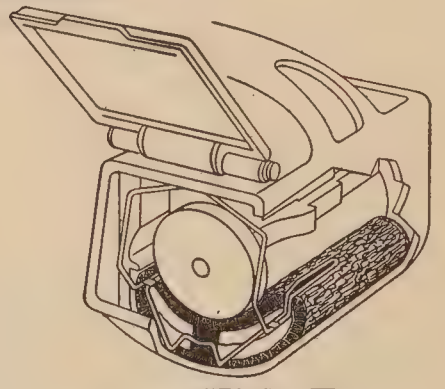

TO REMOVE —
INSERT HOOK INTO RING ON ONE SIDE OF LUBRICATOR AND PULL OUT ABOUT 2 INCHES.
HOOK RING IN OTHER SIDE OF LUBRICATOR AND PULL OUT ABOUT 2 INCHES.
CONTINUE PULLING FIRST ONE SIDE AND THEN THE OTHER, UNTIL LUBRICATOR COMES OUT.

FIG. 3

SHORT LENGTH RETAINER IN PLACE

**The Miller lubricator (above) is one way of handling hotbox problem.**

**16** *What was the full name of the WC&W that terminated years ago at Mt. Vernon, Ill.? Does it still exist?*

The Wabash, Chester & Western is now part of the Missouri Pacific.

**17** *Were Carl Fallberg's* Fiddletown & Copperopolis *cartoons published in book form?*

No. For future plans query the artist, 3021 Angus St., Hollywood 39, Calif.

**18** *Where can I find a copy of the poem "Steam Engine Whistle"?*

If you mean the one written by Minnie Hite Moody, here it is reprinted by courtesy of *Ladies Home Journal,* copyright 1954, Curtis Publishing Co.:

**Listen, my grandson—just beyond the hill**
**It lifts its lonesome voice and wails once more.**
**A sound with heartbreak in it, tired and shrill;**
**A sound a million boys have heard before,**
**And in the nighttime they have raised their heads**
**Just as you're doing now, and felt a strange**
**Wonder catch hold of them in their safe beds,**
**Till the sound sped far off and out of range.**
**It was a sound to part the buffalo grass**
**Long years ago; a sound with history in it.**
**Baltimore, Kansas City, Donner Pass . . .**
**Listen, my grandson, listen for a minute,**
**And then remember always, if you can.**
**It will be gone forever, when you're a man.**

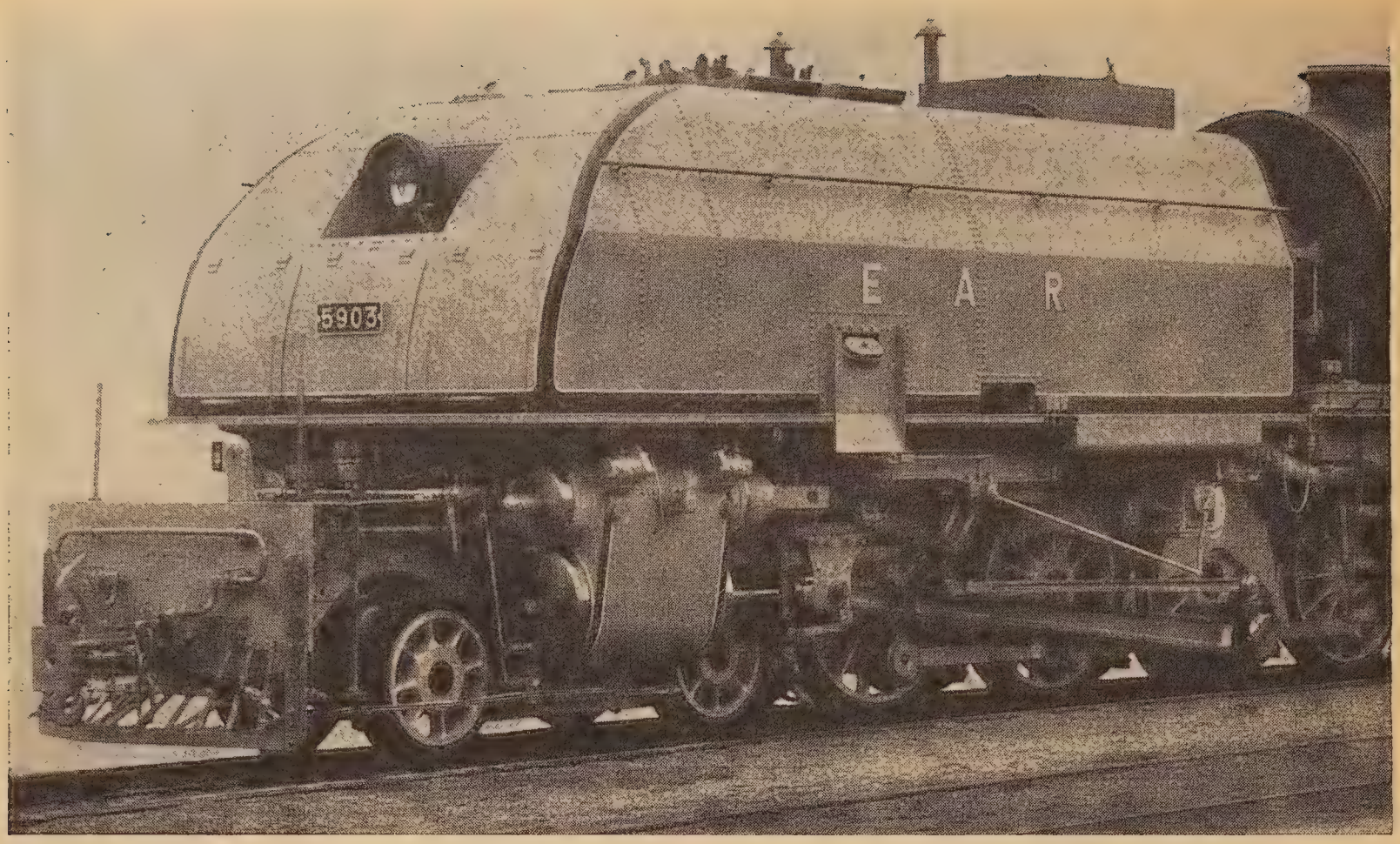
**19** *Define* railroad cocoon.

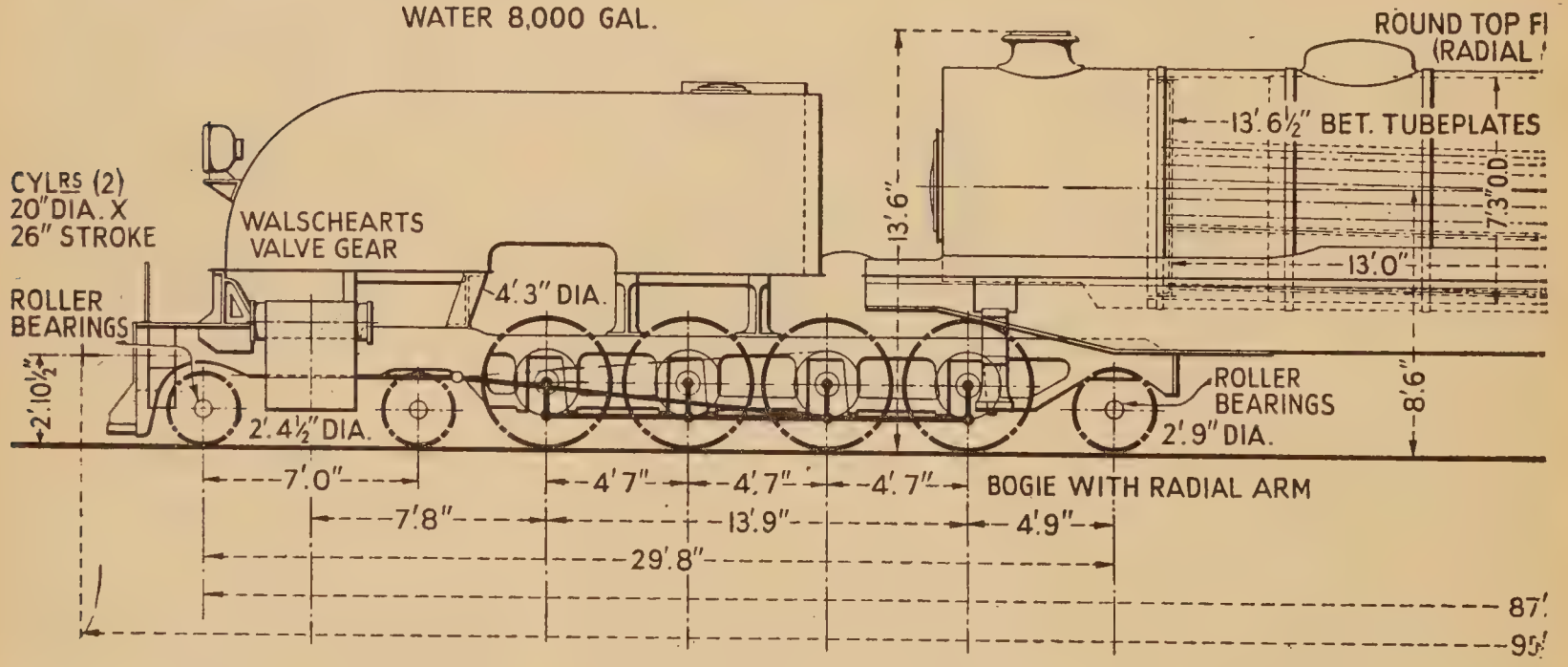
Trade name of a newly developed spray for boxcars and open and closed hopper cars that turns into a tough, flexible plastic to protect certain shipments. The manufacturers, R. M. Hollinghead Corp., say it will not tear or break under severe freight-train impacts.

**20** *Tell us about the new rail line to Labrador.*

The Quebec, North Shore & Labrador runs north for 360 miles into sub-Arctic tundras from Seven Islands, Que., on the Gulf of St. Lawrence, to Schefferville, or Knob Lake, on the Labrador border. Iron ore is now its major item of freight, but uranium has been discovered in the area. Also ilemite, from which is derived titanium, a new heat-resistant metal half as heavy as steel but twice as strong.

Every day triple-unit diesels haul nine or ten 100-car trains, weighing 10,000 tons each, southward to the river ports at Seven Islands and Havre St. Pierre—the road's only connections with the outside world. Trains operate under CTC at a top speed of 40 miles an hour on straightaways. The country is so desolate that station stops—construction camps, most of them—bear




**World's most powerful meter-gage locomotive is this type of Beyer-Garratt articulated**

milepost numbers rather than names.

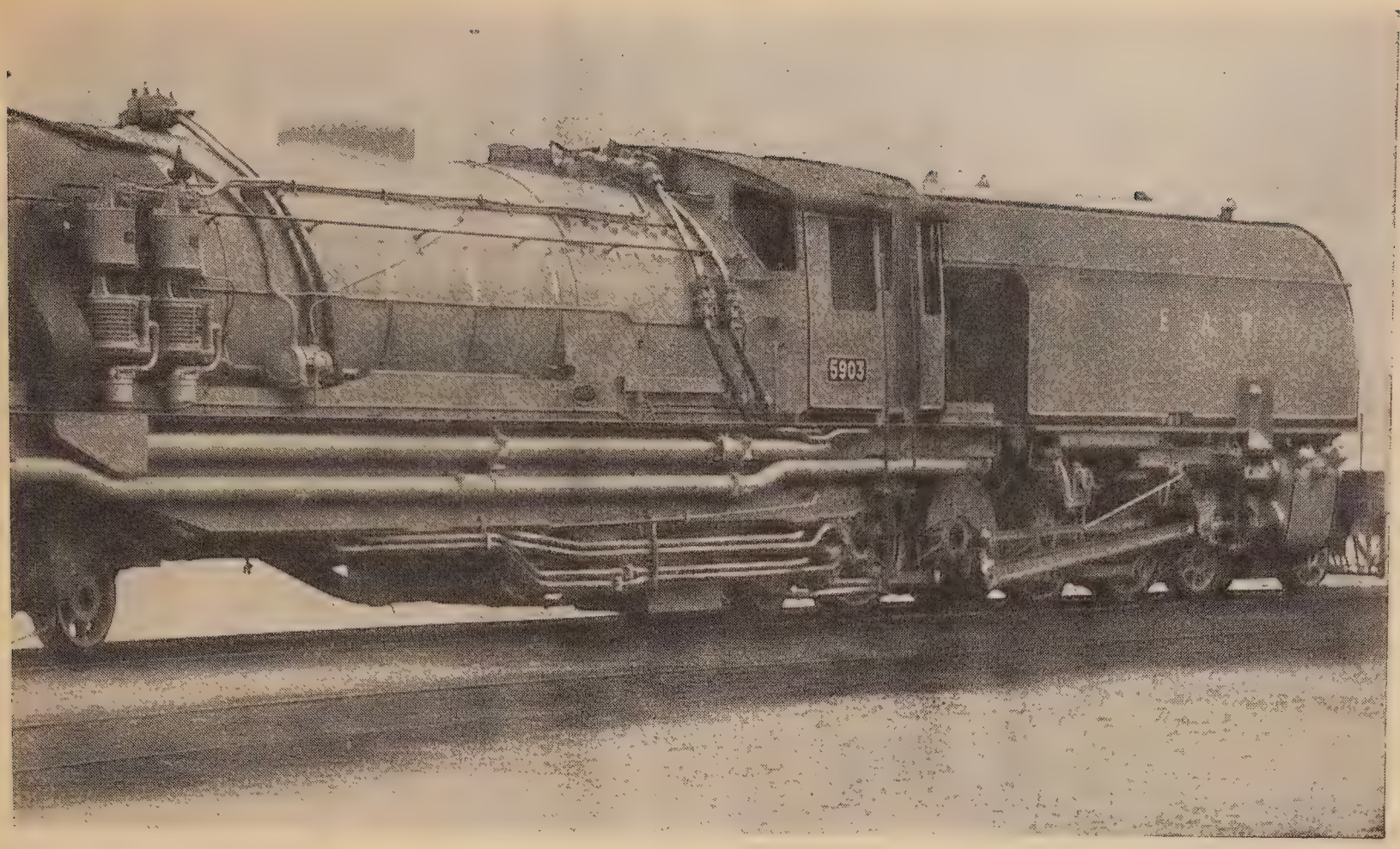
An express or "facility" train, which transports men, equipment, and supplies to wayside points, is the closest the QNS&L comes to passenger service. This train consists of a general-purpose diesel; two old plush-seated, stove-heated coaches, an assortment of freight and baggage cars, and an all-steel caboose. Aside from employes, the line's only passengers are Indians from the Seven Islands Reservation bound for trapping grounds. All are carried free of charge.

**21** *(a) What is the future of the steam-turbine locomotive? (b) Will America's railroads ever regain the traffic they lost to competing forms of transportation? (c) Will they eventually be nationalized?*

Lacking a crystal ball, we can't predict the future. We do know that: (a) Norfolk & Western's solitary steam-turbine locomotive is performing brilliantly. (b) Despite piggy-back freight, dome and double-decker passenger cars, plans for low-center-of-gravity trains, etc., we see no sign of a mass exodus away from highway and air transportation. (c) America's railroads have been nationalized twice, temporarily—in both world wars—and partly nationalized in the Civil War. Only in the unlikely event of a third world war would we expect similar action to be taken.

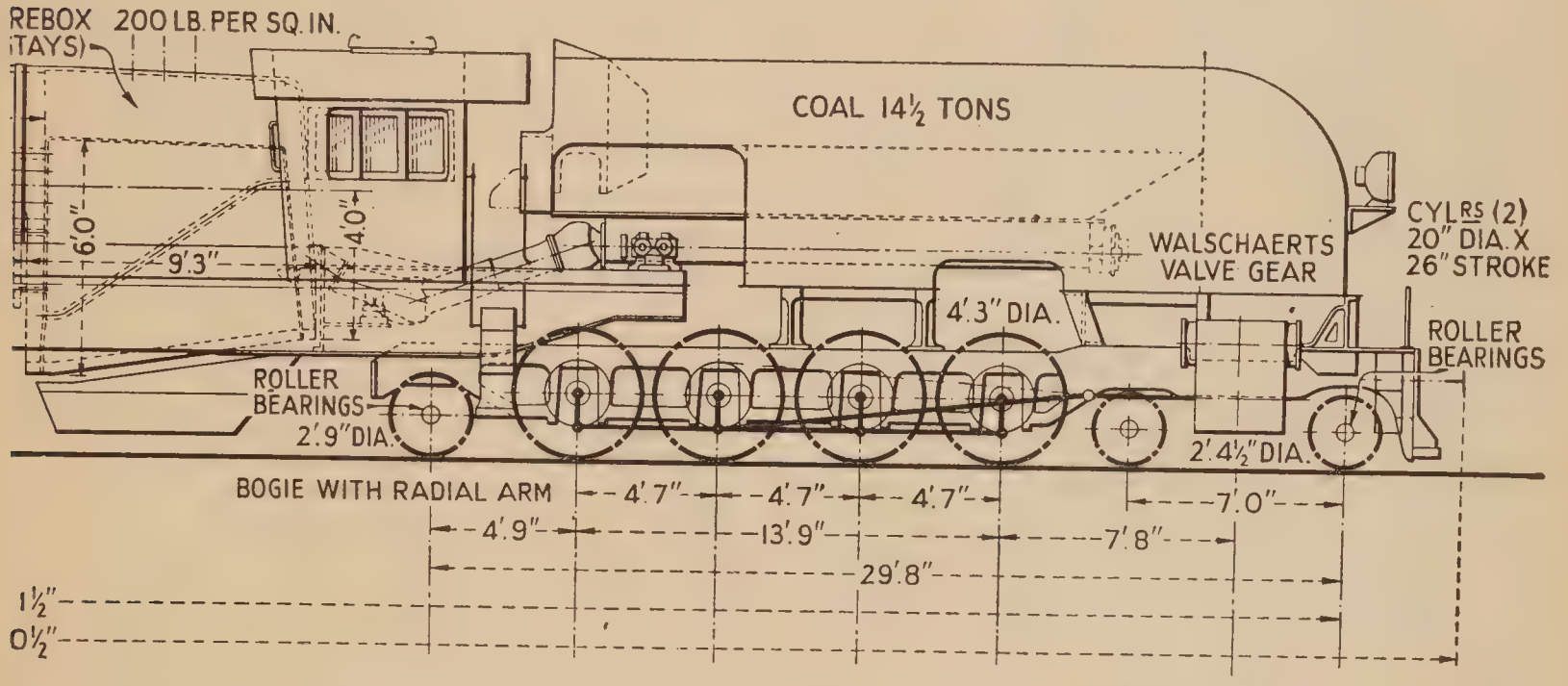
**22** *(a) Are the Union Pacific "Big Boys" the world's most powerful locomotives? (b) What is the most powerful meter-gage (39.37-in.) locomotive?*

(a) Yes, if you mean single units. (b) The Beyer-Garratt 4-8-4 + 2-8-4




Beyer, Peacock & Co., Ltd.

**giant, used on East African Railways. Same type in various gages runs on many other lines.**




type. Thirty-four of them are being built at Manchester, England, by Beyer, Peacock & Co. Ltd., for the East African Railways. These giants can haul 1200-ton trains between Mombasa and Nairobi over gradients of 1 in 66 uncompensated. Such loads are 71 percent heavier than the maximum for the same route before the giants arrived.

Principal specifications of the Beyer-Garratt: four 20x26-inch cylinders, diameter of driving wheels 51 inches, axle-load 17 tons, total weight in working order 225 tons, boiler pressure 200 pounds per square inch, coal capacity 14 tons, water capacity 8000 gallons, and tractive effort at 85 percent b.p., 69,330 pounds.

**23** *What is meant by the term "Do not hump" that I see occasionally on a freight car?*

It means: this car contains fragile material that is likely to be damaged if the car rolls down the hump—a little hill used in railroad yards for distributing cars and making up trains. The request is not always obeyed.

**24** *How many American women are presidents of railroad companies?*

Mrs. Beatrice J. Keane of the Tremont & Gulf, an 84-mile Louisiana freight line, is the only one currently listed in the *Official Guide*. Thirty others are railroad company officials, including the general manager pictured in our Jan. '55 issue.

**25** *A few days ago I saw Norfolk & Western locomotive No. 100 with "Chesapeake & Ohio" stencilled on her tender. Please explain.*

Both roads are cooperating with Warner Brothers in filming Edna Ferber's novel, *Giant*. A passenger train of 1923 vintage was needed for a scene showing Keswick, Va., station. The C&O supplied the cars and its main line but had no steam engine. So N&W temporarily relettered No. 100 for that purpose. This was done to forestall criticisms that N&W rails don't reach Keswick. The engine interchange brought many technical problems such as checking C&O bridges and tunnels for clearance. The N&W's Roanoke shops built No. 100 in 1916, the first of 38 similar engines, all still in service.

**26** *When the Southern Pacific's Owens Valley narrow-gage line was dieselized last year, what became of its old steamers?*

Number 9 is being held as a stand-by at Owenyo, Calif. No. 12 will be on permanent exhibition in Independence, Calif. No. 8 was reported laid aside in February, 1954. All three were originally Nevada-California-Oregon engines.

Great Northern Railway

**Great Northern freight near Scenic, Wash., at western portal of Cascade tunnel, America's longest railroad bore.**

**27** *I recently saw a freight car marked "Patapsco & Back Rivers." Tell me about this line.*

The P&BR is a 95-mile terminal freight road with 41 diesel switchers serving Sparrows Point, Md., and connecting with the Western Maryland, the Pennsy, and the B&O.

**28** *Does the Illinois Central have any Moguls left in service?*

Yes, Nos. 442 and 473, built respectively by Rogers in 1893 and Brooks in '95. Both are hauling freight and have the same specifications: 19x26 cylinders, 56½ drivers, 126,000 weight, 165 b.p., and 24,570 t.f.

**29** *Which is the longest railroad tunnel in our hemisphere?*

Cascade tunnel, 7.79 miles. This bore is part of the Great Northern's 73 miles of electrified main-line train operation through the Cascade Mountains, all of which is now being dieselized.

**30** *Define the terms* steam lap *and* exhaust lap *as applied to locomotive valve gear.*

*Steam lap* is the distance between the admission edge of the valve and the nearest edge of the steam port when the valve is in mid-position. *Exhaust lap* is the distance between the exhausted edge of the valve and the nearest edge of the steam port when the valve is in mid position, in which case the valve overlaps the steam port.

**31** *Does the Algoma Central & Hudson Bay have any steam engines left?*

All were scrapped and replaced by 21 General Motors G-P7 road switchers and two SW8 switchers.

**32** *I heard a radio commentator refer to a freight train delayed by mosquitoes. Does that make sense?*

Yes. Huge swarms of mosquitoes settling on the rails on Storsstroneroen bridge in Denmark recently made them so slippery that not even sand could give the engine wheels enough traction. The train took an hour and a half to accomplish what is normally a five-minute crossing of the two-mile bridge. Similar delays have been caused by grasshoppers on many railroads. Lincoln's funeral train was held up by flowers that Harrisburg, Pa., school children threw in front of it.

**33** *Does the Chesapeake & Ohio carry more coal than any other kind of freight?*

If you had asked that question prior to 1954 we would have said yes. But last year, for the first time in history, merchandise traffic headed the C&O's freight-revenue list.

**34** *How about a history of the Fort Worth & Denver?*

Sure, why not? The Fort Worth & Denver City—its original name—was incorporated in 1873 to build from Fort Worth to Denver in the hope of developing trade in cattle, forest products, grain, and minerals. Grenville M. Dodge, who had ramrodded the Union Pacific to completion, started building it. The first rail was laid in February, 1882. The line headed north toward the newly organized Denver & New Orleans, building south out of Denver. In September work halted at Wichita Falls, 114 miles to the northwest. Eight locomotives went into service and towns sprang up along the line.

By 1885 the FW&DC had crept ahead another 34 miles, but the D&NO was in financial trouble. It wasn't until 1887, when the two roads were united as the Denver, Texas & Fort Worth, that work on either road started again. A fierce construction race to Texline, the midway point, got underway over the 460 miles that separated the two roads. Texas won. The two lines met near Folsom, N. M., March 14, 1888.

Financial woes plus crop failures and drought cut traffic to a dribble. In 1891 the DT&FW was merged with the Union Pacific as the Union Pacific, Denver & Gulf. Then came a receivership. From it emerged the Colorado & Southern, which was absorbed in 1908 by the Chicago, Burlington & Quincy. Under Texas law the Fort Worth & Denver retains its identity today, operating 902 miles of main and branch line between Fort Worth and Sixela, N. M. (Roster on page 29)

**35** *Has any American postage stamp honored a railroad woman?*

No, but 16 featured non-railroad women. Efforts are being made to induce the Postmaster General at Washington, D. C., to authorize the issuance

of a stamp next July 6 on the 75th anniversary of Kate Shelley's heroism in crossing the flooded Des Moines River on a dark stormy night to save a Chicago & North Western passenger train. We hope readers will support this move.

**36** *Is it true that millions of honey bees ride the rails?*

Yes, twice a year. Each spring they are shipped by Railway Express from the South to northern U. S. and lower Canada to pollinate fruit orchards and other crops. Each fall the survivors return to the South.

Without bees, orchards could not bear fruit—except in the very few places where costly experiments are being made in fruit-pollination by hand. The train-riding bees are packed with a queen in wire mesh hives, each hive containing a little water and sugar as food for the trip. In very hot weather an attendant cools them with fine sprays of water.

**37** *Can the Association of American Railroads lay an embargo on railroad freight shipments to any given terminal, port, or area?*

Yes, provided one of the roads involved requests it and if operating conditions warrant such a step.

**38** *Which is the largest railway system under one management?*

The U.S.S.R. (Russia), with 66,487 total mileage in Europe and Asia, nearly 54,000 of which has 5-foot gage.

**39** *What parts of the present Southern Pacific comprised the original (a) Central Pacific and (b) El Paso & Southwestern?*

Your question is not simple. (a) The original Central Pacific RR, Inc. 1861, built and operated 738 miles from Sacramento to 5 miles west of Ogden via Promontory, Utah. From 1857 to 1870 the CP also operated, but did not own, various other roads. The CP *Railway,* Inc. 1899, comprising the old CP *Railroad* and many acquired lines, boasted 2202 miles.

This situation is complicated by the fact that ever since April 1, 1885, the Southern Pacific has been operating all CP mileage. A complete list is too long to print here. In 1904, when the Salt Lake cutoff was opened, part of the original CP (between near Lucin and Cecil Jct., Utah) was abandoned.

(b) The original road that became the EP&SW, running between Fairbank and Bisbee Jct., Ariz., was built by the Arizona & Southeastern, 1888-'89. The EP&SW, Inc. 1900, running between Tucson and El Paso, has been operated by the SP since Nov. 1, 1924.

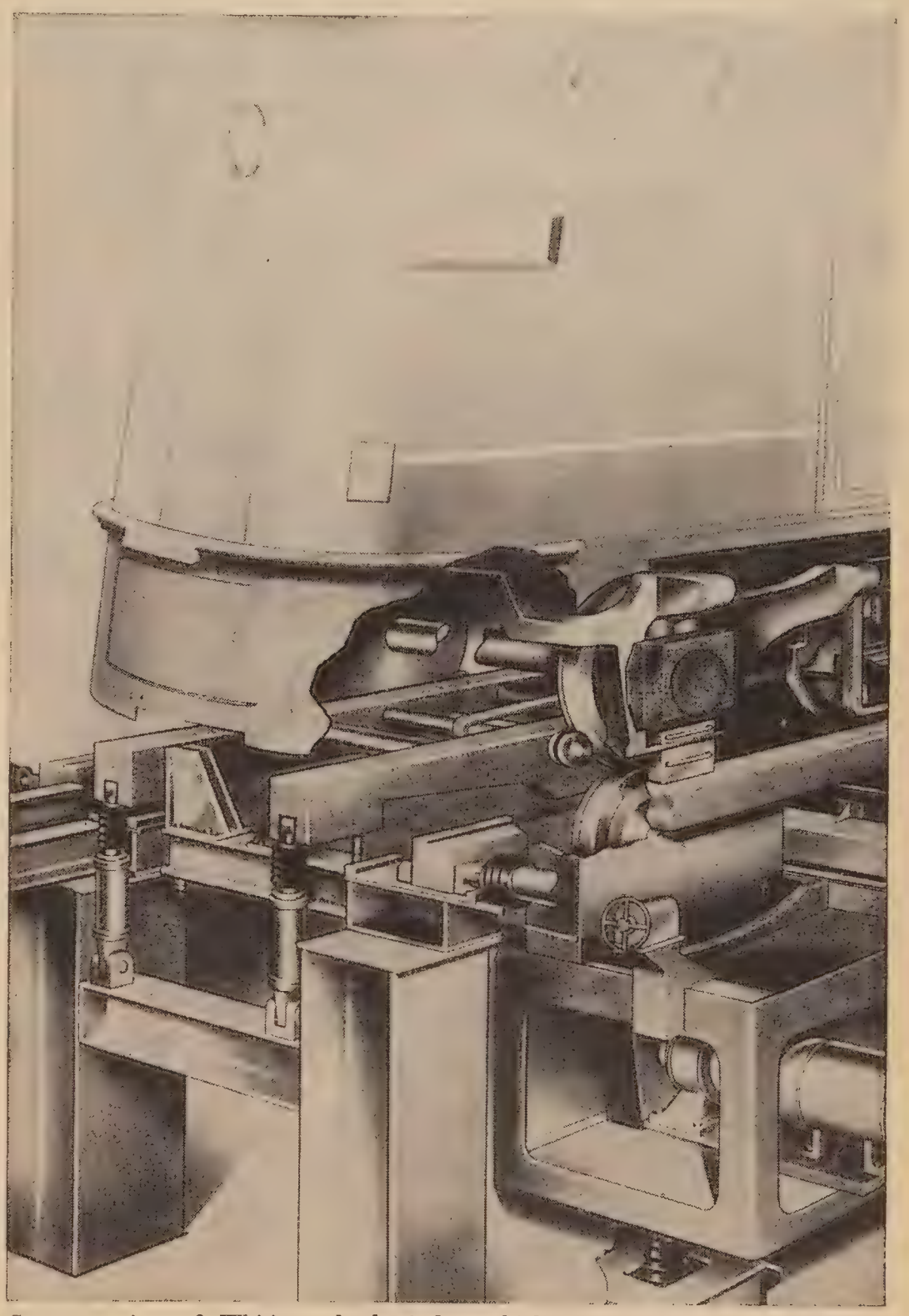
**40** *Tell me about the cab-in-front locomotives that the Great Northern used in North Dakota around 1914.*

The "Big G" never had cab-in-fronters.

**41** *How are locomotive wheels kept in precision trim?*

One of the difficulties encountered is the necessity, when wheels require servicing, of removing the wheels or trucks by drop table or by improved type of jacks. This necessitates the dismantling of all connecting parts—brake rigging, etc.

On the Baltimore & Ohio, in conjunction with the Whiting Corp., a permanently located wheel grinder has been installed at the Cumberland, Md., shops. This machine can grind locomotive wheels at the rate of a pair per hour. No longer is it necessary for the wheels or trucks to be removed in order to true them.



**Cut-away view of Whiting wheel-grinder, which can true a pair of locomotive wheels in an hour at Baltimore & Ohio shops, Cumberland, Md.**

The new method grinds off only a minimum amount of metal, thus lengthening the wheel's life-span, as compared with the older and slower method. The same machine can be used at any time to restore the contour of car wheels.

It operates rather simply. The locomotive or car is moved over a pit where the grinder is located. Crossover rails bridge this pit. After the wheels are correctly spotted, a frame carrying four grooved rollers is raised, lifting the wheels about an inch above the crossover rails. Then the wheels are ground to AAR specifications, with hydraulic pressure, two at a time, at the rate of 34 surface feet per minute. Two men operate the grinder, one on each side.

## RUNNING EXTRA

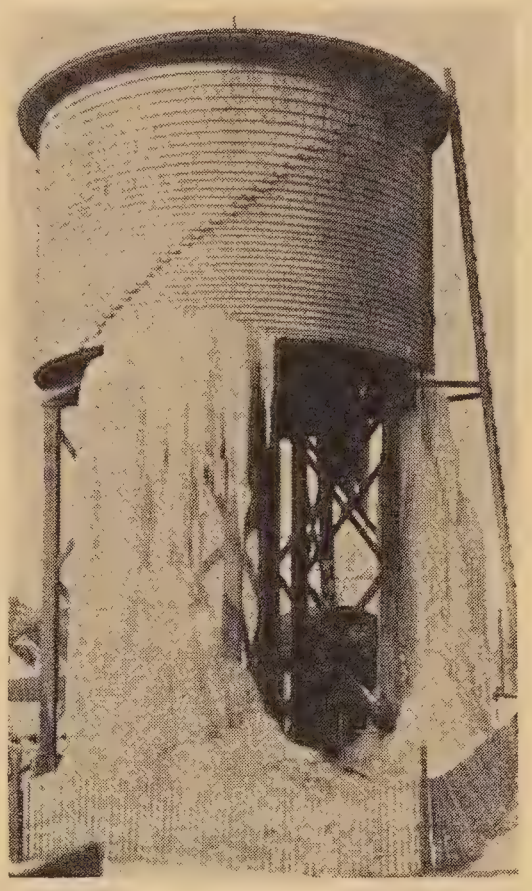
REQUESTS for information are piling up on our desk much faster than the magazine can find space to handle them. We are grateful for the many fine letters we get, including the personal ones, but time doesn't permit us to answer by mail. So, in a desperate effort to catch up, we are enlarging this department. We hope you like it. Incidentally, we get more queries about the Southern Pacific than any other road.

BILL KNAPKE, retired SP conductor, is gathering data for a *Railroad Magazine* article on train marker lights. He needs facts about the various types. When and where were marker lights first used? He also seeks anecdotes, brief first-person experiences with marker lights, jokes about student brakemen and marker lights, and details on wrecks and near-wrecks involving the failure or absence of marker lights. Bill's address is 9 North Lane, Orinda, Calif.

MISSING MEN. F. W. Schlaak, 301 Tompkins St., Fond du Lac, Wis., wants to locate Sam Mitchell, with whom he wintered in 1910-'11 at Howell, Mich. Also George W. ("Red") Hayes, presumably born in Marshalltown, Iowa, who worked as a Michigan Central boilermaker about 1910.

THREE-LEVEL crossing at Richmond, Va., (pictured in June issue), is matched by one at Chesterfield, England, reports Arthur G. Wells, 64 Martyrs' Field Rd., Canterbury, Kent, England.

"As originally built," he writes, "the top level at Chesterfield was occupied by the Lancashire, Derbyshire & East Coast Ry. (a line which never reached Lancashire or the coast). The Midland



Milwaukee Road

**Deep freeze on the Milwaukee Road at Winona, Minn., interfered seriously with the watering of locomotives.**

Ry. ran on the middle level, and Great Central Ry. the bottom. In 1907 the GC took over the LD&EC, forming a 'sandwich' around the Midland. On Jan. 1, 1948, all of Great Britian's common carrier rail lines were nationalized, so all three levels are now used by British Railways."

Mr. Wells adds: "The 2-6-2 type engine is by no means as dead as you seem to think. It is still very popular in Europe. British Railways have 186 of them, Germany about 600, Italy over 400, Russia probably more than 1000, etc. They are important main-line express locomotives. If you count 2-6-2 tank-engines, the figures are much larger. Britain alone has over 800, Germany about 1500, and France about 200, besides other countries in Europe, Asia, Africa, and South America."

ROBERT ROLAND, Chester, Pa., rebukes us for what he terms an "annoying error" because we stated (Aug. issue) that during World War II some trains ran between Grand Central Terminal and the Pennsylvania Station in New York City.

Our statement is true. A few troop trains and Presidential specials actually ran between the two big terminals for security reasons. Sy Reich, 9 St. Marks Pl., New York, writes:

"A train would leave GCT, run northward on the main line, and take siding at New Rochelle, N. Y., where its engine was cut off. Another engine, coupled to the opposite end, would pull the train to Penn Station via Van Nest, Hell Gate bridge, New York Connecting RR., the Long Island, and PRR.

"Incidentally, the following roads operate one or more locomotives in this city: (a) *Manhattan Island:* B&O, LV, New Haven, Erie, PRR, and NYC; (b) *Staten Island:* B&O and Pooch Term.; (c) *Brooklyn:* LIRR, PRR, New Haven, Army, BT, JSC, BEDT, NY Conn., SB, and NY Dock Term.; (d) *Queens:* PRR, LIRR, BEDT, NY-Conn., and New Haven; (e) *Bronx:* CNJ, NYC, New Haven, DL&W, HRR, and Erie."

Mr. Reich tells us that the New York City Transit Authority and its predecessors have occasionally operated troop trains. Last Memorial Day, for example, the Authority moved soldiers and sailors to upper Lexington Ave. for parades.

MARTHA'S VINEYARD RR. material (June issue) caused Raymond Beecher, 115 Middlesex Ave., Reading, Mass., to "burst into song," as he puts it, "because as a child in 1886 and '87 I used to play around that narrow-gage line. I remember lying on the sand under a trestle watching trains roll above me. Some thrill! Your photo shows a bath-house. In those days it had no separate men's and women's quarters. Thanks for bringing back memories.

"Could some reader supply information—and a picture—of the old Dummy RR. that ran between Onset station on what is now the New Haven's Cape Cod line and Onset Center about three miles from the main line? I used to love those engines, Nos. 1 and 2."

CORRECTION: *Railway Age's* librarian is Edith C. (not Hannah) Stone.

BLIND-SIDED ENGINES. Ivan Saunders, 472 Belonda St., Pittsburgh, Pa., writes: "For years the B&O had a six-wheeled goat, No. 320, renumbered 1120, with only one window, serving its Ivorydale shops at Cincinnati. The blind side of the cab had a coal pocket. Built by N.J. Locomotive Works in 1886, she was junked in 1953. I have a negative of her."

WHISTLE BOARDS, which call the hogger's attention to a grade crossing, intrigue George Bradley, master, Howe (Ind.) Military School. He writes: "They are common in the Midwest in various shapes, usually a concrete post with a painted W. The Pennsy uses keystone-shaped metal plates with the W in a raised surface, set about 100 yards from a crossing. In some cases whistle boards protect interlocking plants."

ADDITIONS to our brief history of Boston & Maine's Hoosac tunnel come from Stephen G. Rich, 13 Otsego Rd., Verona, N.J.: "The first passenger train went through Oct. 13, 1875, prior to which only work trains and freights used it. Shortly after its opening, the bore was double-tracked. In 1926-'27 it was widened to handle larger rolling stock. Dieselization of the Fitchburg Division ended the tunnel's electric operation; wires were removed."

"WHERE can I get Australian railway maps?" asks Hugh Crabbe, USNA Station Bldg. 12, Atlanta, Ga.

DR. E. T. ALEXANDER, Barnsdall, Okla.: "Who can supply details on the blizzard of '86? My father was out in it. I think *Railroad* covered the subject but I don't know when." (Neither do we.)

QUERY from A. R. Albrecht, retired, Hickory Park, Plano, Ill., who began railroading in 1900: "Who can tell me about the Burlington wreck at Corinth, Wash., on Feb. 12, 1917?"

"IS THERE any North American airport from which you can go directly from a plane into a train or *vice versa?*" —A. J. Franck, Box 171, Richmond Hill, N.Y.

"PUBLISH an article on the history of locomotive bells"—A. E. Durocher, Marquette, Mich. (We did; Sept. '49.)

"AN OLD abandoned railroad grade about 1½ miles long runs on the north side of Colorado's Royal Gorge, eastern end. Who knows its history?"—A. J. Morin, 1391 W. 46 Ave., Vancouver, B.C., Canada.

"I WANT a history of the abandoned Diamond & Caldor Lumber RR. in California."—R. R. Pennick.

HAROLD BUCKLEY, Jr., Box 45, Silver Springs, Md., seeks information on the abandoned Smithfield Terminal Ry. in Virginia.

NOBODY seems to know when or where the first railroad telltale was used. Charles E. Fisher, president, Railway & Locomotive Historical Society, writes: "In my old home town, Taunton, Mass., Central Station was built in 1865 with a very low clearance at one end. Telltales hung at both ends. My Dad said they dated back to Old Colony RR. days, the mid-1880's. I also have prints that lead me to believe the telltale was in use at that time, but the date could be 5 or 10 years off."

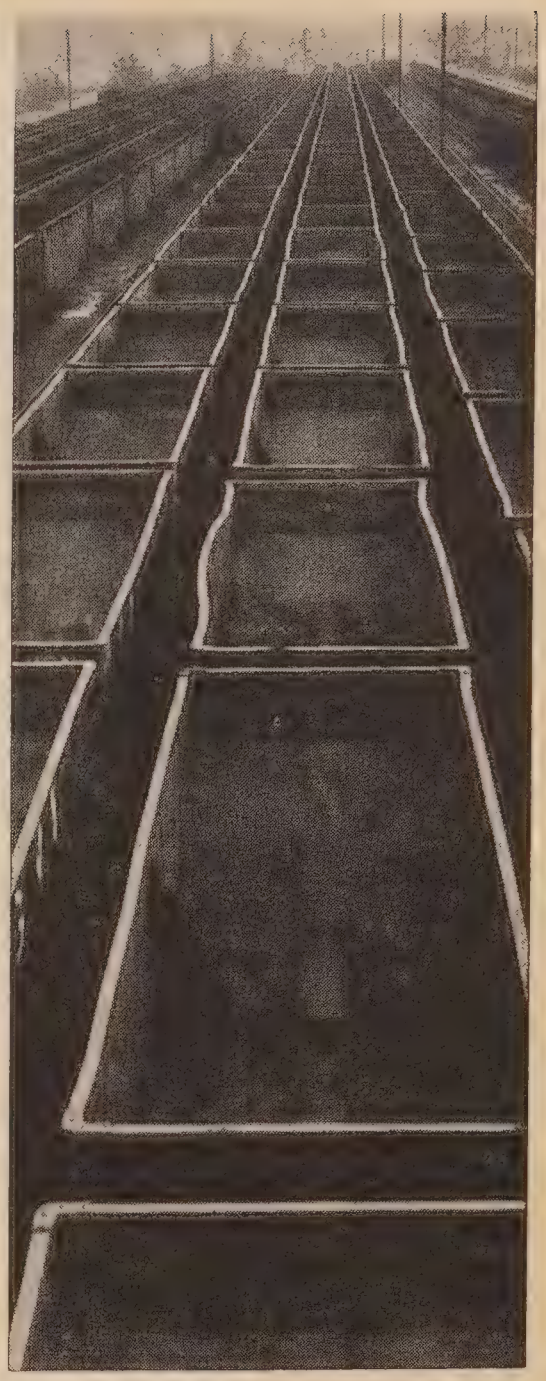
"BACK in 1887 train orders for all CB&Q extra trains identified the train by the conductor's name instead of the engine number," writes Robert C. Brown, CB&Q agent, Pleasantville, Iowa. "Did any other road follow this practice?"

GERMAN FEDERAL RAILWAYS: our item of last May drew comments from Karl W. Helft, 5815 3rd Place N.W., Washington 11, D.C.:

"Eight weeks ago I visited my native country, Germany. You are right in saying that western Germany has made remarkable progress in rehabilitating its rail lines. Dieselization there will take a different form from what is known in America. The expansion of diesel-cars in Germany—similar to the RDC cars over here for branch-line traffic and rail buses—is expected. Switching may be handled by diesel-hydraulic engines.

"Southern Germany is not fully electrified, but some lines are. More electrification is likely. The total transition from steam to some other power will never be as rapid or complete in Europe as in America.

"The railway in the Soviet sector is delapidated as compared with its counterpart in the west. Little progress is evidenced there. Inter-zonal traffic is quite heavy, both freight and passenger, including troop trains."



**Battered and bent by heavy loads, Virginian Ry. hopper cars await repair at Princeton, W. Va.**

J. David, Direction des Etudes, Conseil de l'Europe, Strasbourg, France, tells us: "In the Soviet sector the track is poor, while locomotives and cars are in bad condition, no new construction being done. Some electric catenaeies have been torn down, some second track removed, as reparation.

"Germany still has some private railways, mostly narrow-gage. None of them compete with the publicly-owned ones. No country in Europe allows competition between railways, anyway." He adds that Germany is operating two Talgo-type streamliners and that an extra fare is charged on all fast trains. ●

Lucius Beebe

**Only a year ago NCO 18 was still operating on the Southern Pacific's slim-gage line in the desolate Owens Valley.**

# COW-COUNTRY NARROW-GAGE

*Built with Champagne and Gunplay, the Nevada-California-Oregon Grew Up to be One of the Longest Yard-Wide Lines in the World*

**by O. K. BURRELL and DAVID F. MYRICK**

"WHICH WOULD YOU RATHER DO," the conductor asked, "stop in Alturas for supper, or go on into Lakeview?" He had a pencil and a little black notebook in his hands, and when he had my answer, he made a mark in the book and moved on to the next passenger. Whether we stopped at Alturas or not depended on what the majority of the passengers decided.

Such unorthodox procedures, smacking more of the Comstock era than 1923, were typical of the narrow-gage Nevada-California-Oregon Railway, which thirty years ago ran for 156 dusty miles through the high desert cow country between Wendel, California, and Lakeview, Oregon. On most roads such methods wouldn't have been considered practical. But there were rarely any other trains on the NCO line, and no chief dispatcher to tear out his hair.

Wendel at that time wasn't much more than a place in the sand and sagebrush where the NCO tracks met those of the Southern Pacific's Fernley branch from Reno. That morning some twelve or fifteen of us had trooped down from the SP coaches, waded through the hot sand, and climbed aboard the two high-platformed narrow-gage coaches that waited for us. Then the whistle of the little train gave a high-pitched shriek, and we pulled out in a cloud of dust.

The car's single-paned windows, which were loose to begin with, had to be raised for ventilation, and so dust blew in on us most of the time. But otherwise it was a pleasant trip. The travelers were congenial. Many of them seemed to know one another, and if they didn't they quickly made themselves acquainted. It was nearly six o'clock now, and we had traveled nearly a hundred miles north since leaving Wendel at ten that morning.

"Everybody wants to eat in Al-

turas," the conductor said, and when a few moments later the train stopped, a few passengers got off confidently—obviously they either lived in Alturas or had made the trip before—while the rest of us gathered around the conductor for instructions.

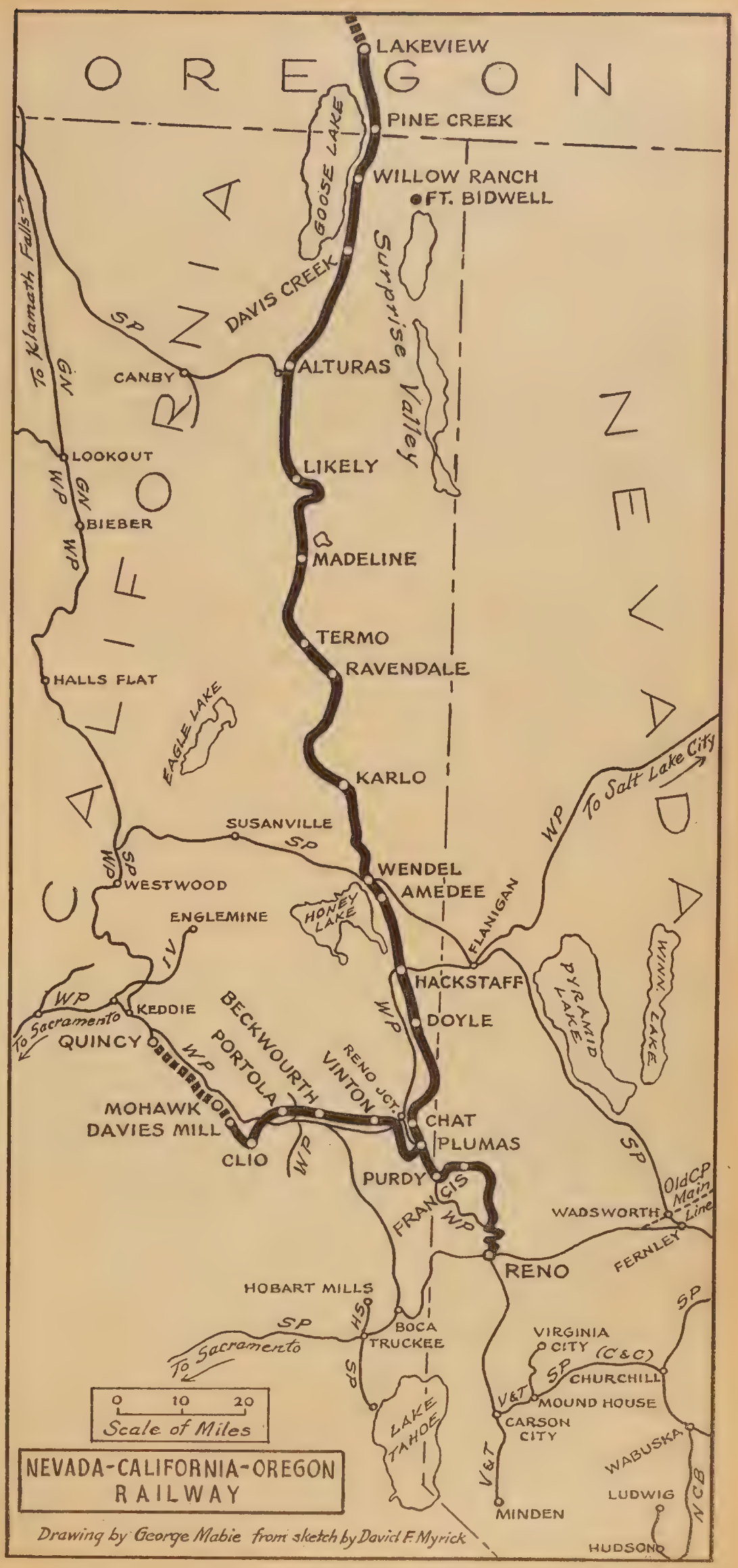
"Well, now," he said, pointing to a big house nearby, "you can get a pretty good meal over there for seventy-five cents—but if you don't like boarding houses, there are some restaurants in town, about a quarter of a mile down the street." As we hurried off, he shouted, "Let's try to be back in an hour. We want to make Lakeview by midnight."

Supper in Alturas was no depot-lunch-counter affair in which you gulped a sandwich and a cup of scalding coffee while the conductor paced the platform impatiently. When the time came to depart, the train waited until the conductor was sure that all passengers were aboard.

The NCO had so few trains in operation that its operating procedure could be casual and friendly without any loss of safety. One trainman, for example, who lived close to the tracks a few miles south of Lakeview, would pick up his train whenever he got up too late for breakfast, bring it back to a point close to his home, and leave it on the high iron while he went home to eat.

Another story involves a conductor whose train was unable to make it up the big hill near Madeline, California. Knowing that he would be late getting home, the conductor wired his wife: AM STUCK ON MADELINE HILL. His loyal wife promptly wired back: OK. PUT HER ON THE TRAIN AND BRING HER HOME.

The uniqueness of the Nevada-California-Oregon was not limited to the casual and democratic way it sometimes ran its passenger trains. It was said to have both the highest and the lowest passenger fares in the United States. Its regular fares, averaging between four and six cents a mile, were sky high, but a special train for the fifty-eight miles between Lakeview and Alturas and return could be hired for as little as $49. As a result, athletic teams from Lakeview and Alturas high schools regularly traveled by train. Individuals could sometimes



order specials, though this service was generally limited to emergency medical cases, while special rates went into effect when celebrations and special events occurred in towns along the line.

The narrow-gage line attracted business from great distances because the bulk of its freight was four-legged and could walk to the loading pens for shipment.

These noisy livestock drives, with cattle bawling and dust rising in clouds, sometimes almost put Lakeview in the great tradition of cow towns like Abilene and Dodge City. The great ZX ranch, whose headquarters was some forty miles north of Lakeview, shipped feeder cattle by the trainload to its vast land holdings in southern California to be fattened for market and wild horses, rounded up every so often on the high desert and driven to the loading pens in Lakeview, were a spectacular though unimportant item of freight. This livestock traffic, while of unquestionable value to the road, did have its disadvantages. Largely seasonal, it necessitated investment in equipment which was used only occasionally at other times.

For nearly a half century, the road was owned and controlled by the Moran family of New York, and considering everything, it must be conceded that the Morans knew how to run a railroad, or more exactly, since they had little to do with its actual operation, they knew how to pick men who did.

In the narrow-gage's heyday between 1905 and 1910, probably no railroad was more profitable, thirty to forty-five cents out of every dollar taken in being operating profit. And when, in its declining years, the property was finally sold to the Southern Pacific, there was enough, in Pacific Electric bonds, to pay off not only NCO bonds but also a good part of the preferred stock as well. Only the common stock was worthless, and the Morans probably did not pay full value for it, and possibly paid nothing at all.

The NCO got underway in the summer of 1879 when some San Franciscans decided to build a railroad from Wadsworth, Nevada, a division point on the Central Pacific, south toward the borax and soda lakes around Candeleria and Rhodes Salt Marsh. But after D. O. Mills and Henry Yerington, progenitors of the Virginia & Truckee, began to build their long-projected Carson & Colorado railroad into roughly the same territory, the company decided to turn northward, and in June, 1880, The Nevada & Oregon Railroad was incorporated to build railroad lines from Wadsworth to somewhere in Oregon, to Carson City, Nevada, and to Bodie, California, with a branch line to Virginia City.

Moran Brothers, a New York banking and brokerage firm, presided over by former Erie President Charles Moran, Sr., took up the First Mortgage Bonds, while Col. Thomas Moore of New Jersey, who had been awarded a preliminary contract to construct the road, went to Reno to get the lay of the land. Moore selected Reno rather than Wadsworth as the terminal, and, after a great deal of controversy, construction of the northern line into Oregon was undertaken first—the other lines never were built. On December 22, 1880, Colonel Moore broke ground, throwing the first shovelful of earth over the crowd by way of baptism, and a few days later subcontractors began grading and trestle work.

O. K. Burrell

**Worst tie-up in NCO history came in 1916. Two engines rammed into drift blocking line, stayed there for nearly a month.**

Linwood Moody

**NCO 14 picks up newspapers at Grass Valley, Calif., on the now-abandoned Nevada County Narrow-Gage. NCNG bought her from SP, renumbered her 9.**

On February 21, when Moore was to make his first payment, work stopped abruptly. The men waited anxiously for their pay, but they failed to get it until some weeks later when a new company, the Nevada & Oregon Railroad, was formed with a new board of directors. The work went ahead, the iron began to arrive, and the first spike was driven in May, 1881. The N&O's only engine, a second-hand Porter-Bell 0-6-0, acquired from California's Santa Cruz & Felton Railroad, began working on the line, and a champagne celebration was held to commemorate the completion of the first five miles of line.

But despite the progress Moore was making with the line, the board of directors were dissatisfied and accused him of all kinds of skulduggery, including appropriating some $12,000 of the company's money for his personal use. Moore claimed defamation of character and filed suit for $250,000 damages. Having been paid most of the company stock under the terms of his contract, Moore decided to hold a stockholder's meeting and unseat the directors. But when Moore's man Scoville absconded with the company's books and papers, the directors, who were unwilling to risk losing control of their investment, issued themselves additional stock in ample amounts and neglected to pay for it.

Gerald M. Best

**Tall-stacked first 6, later second 4, was a woodburner built by Baldwin in 1899.**

Moore obtained an injunction to prevent the director's stock from being voted, and arrived at the meeting with a number of his graders who claimed they were waiting to get their pay. The directors were there too, despite the court's injunction, and Moore, with the help of his graders, sought to evict them. A number of shots were fired, and when the smoke cleared board president Balch had been severely wounded while Moore's flunkey Scoville was mortally wounded. Later practically everybody said ordinarily he did not carry a gun, but he thought he'd have his gun checked at Parrott's, the local gun-

*(Continued on page 62)*

**Built by Jewett, No. 27 and similar cars ran on the Ardmore, Media, and Sharon Hill division from 1912 to 1933. They had high-back, leather reclining seats. This one is bound for West Chester.**

# PHILADELPHIA SUBURBAN

## *Its Roots Go Back to 1848 and It Basks in the Sunshine of a Bright Future*

**by STEVE MAGUIRE**

WHEN the Philadelphia Suburban bullet car pulled to a stop at West Overbrook station not far from the city line, the motorman and a boy got off, went to the rear of the car, and looked around.

"I know Ronnie was there," the boy said—his name was James Dillon. "He was on that ledge there, hanging onto the back."

"Did you know these cars go eighty miles an hour, son?" the motorman asked.

The boy frowned and looked anxiously down the track, but said nothing.

That morning he and Ronald O'Connor had taken the PST into Upper Darby to do some Christmas shopping. Ronnie had only the price of a one-way trip, but Jim told him not to worry, he had plenty for them both. But after a few hours in Upper Darby, Jim had only enough left for one fare.

Ronnie didn't care. He'd just hitch a ride on the rear end of the car. If Jim had any misgivings, he didn't say so. He paid his fare, went inside the car, and watched Ronnie climb onto the back.

But once the train got underway, Jim began to worry. The train was moving pretty fast, and Ronnie was getting to look a little scared outside the back window there. Jim decided he'd better tell the motorman.

The motorman called the police, and a detachment of bluecoats

swarmed over the PST right-of-way looking for Ronnie, or what was left of him, but the lad just wasn't to be found—not a trace. Eventually the police radio announced Ronnie had turned up at Jim Dillon's house.

When the motorman had gone back to investigate, Ronnie had jumped off, hidden until the motorman went to call the police, and then got out of there—fast. The boys were lectured on the dangers of high-speed trolley hitching, and the interurban company got back again to the job of running its trains. All of which is one tiny detail in PST history.

SOLE SURVIVOR of a once-vast network of interurban lines in the East, the Philadelphia Suburban Transportation Company is doubly remarkable in that its continued operation depends solely upon passenger revenue in an age where freight traffic is ordinarily indispensable for railroad operation.

Today, the PST boasts six rail routes, which spread out of its vast 69th Street terminal in Upper Darby, Pa., and into the tree-shaded communities of Sharon Hill, Media, Westgate Hills, Strafford, Norristown, and Ardmore.

The Red Arrow Lines, as PST is popularly known, have their origin in the Philadelphia & Western Railroad Company, formed away back in 1848 to take over the toll road laid out in 1692 between West Chester and Philadelphia.

By 1859 the Philadelphia & West Chester Turnpike Road Company had succeeded the P&W, absorbed a number of horsecar lines as well, and drawn up plans for building a 19-mile rail link between rural West Chester and Philadelphia. Bits and pieces of what one day were to become part of the PST system were actually built, but years were to pass before the main line to West Chester came into being.

In 1892 the Philadelphia, Castle Rock & West Chester was incorporated with that still-elusive 19-mile line as its objective. By 1894 eight miles of track, between Newtown Square and 63rd Street in the big city, had actually been put down alongside the old toll road. Mules hauled the line's first passenger cars. Later, steam locomotives took over briefly, but gave way to trolley wire when the road was electrified in 1896.

David H. Cope

**Red Arrow cars glide through charming countryside, typical Philadelphia & Western private right-of-way. (Below) Ardmore Junction interchange.**

Robert T. Noble

Shortly thereafter the PCR&WC became the Philadelphia & West Chester Traction Company.

In August of 1899, the long-projected 19-mile line was finally completed. At its 63rd Street terminal, the P&WC connected with city surface lines, with which it shared a common 62¼-inch gage, and so it was possible for P&WC cars to travel all the way into downtown Philadelphia. Business along the line was slow, however; and so, like many other trolley companies of the time, P&WC built an amusement park—at Castle Rock—to attract riders from either end of the line.

The first hint of expansion came in 1902 when seven 15-bench, double-trucked open cars, Nos. 17-23, began operating over a three-mile line between Ardmore and Llanerch. P&WC leased the Ardmore & Llanerch Street Railway, as it was called, and called it the Ardmore Branch.

Then, in 1907, the Market Street Elevated opened a new line between downtown Philadelphia and 69th Street. Built to a 42-inch gage to prevent West Chester trolleys from ever running over the line, the Elevated succeeded not only in forcing the P&WC to abandon its 63rd Street terminal and follow the traffic to 69th Street, but also in blocking, for all time, rapid-transit operation between the heart of the city and the western suburbs.

WITH THE OPENING of the Elevated extension, however, traffic on the P&WC began to boom. The interurban lay in the logical path of Philadelphia's suburban development. A river and marshes precluded expansion to the south and east, while the north side was already built up.

The P&WC prepared itself for great days. It rebuilt and double-tracked four miles of line between 69th Street and Llanerch and built extensions to Media, Colingdale, and Sharon Hill. New construction ended in 1917.

The equipment roster began to grow rapidly. Twenty-one heavy Jewett interurbans, Nos. 24-37, were in service by 1912, and, though otherwise satisfactory, they were not suited to the suburban Sharon Hill and Ardmore lines for which they had been bought. Thus between 1919 and 1926 the company ordered thirty-two center-door, pay-as-you-enter cars from Brill, Nos. 45-76, a few of which are still used today during rush hours.

Freight service, operated in the early years, terminated in 1926, and thereafter the road relied solely on passenger revenues. Hard hit by the Depression, the P&WC was nonetheless optimistic about not only its own prospects but those of the suburbs it served. Daringly it scrapped all but six of its heavy Jewetts and replaced them with ten fast new lightweight interurbans, Nos. 77-86, to attract more business.

In 1936, the year the P&WC became the Philadelphia Suburban, plans were announced for replacing the old stub-end terminal at 69th Street with a new one, containing a loop for electric cars and off-street platforms for the line's fleet of buses.

The new terminal was completed in time to handle the traffic that descended upon it once gas rationing went into effect. Shortly before the war began, the last ten interurbans Brill ever built, Nos. 1-10, went into operation, to be followed in 1942 by three double-ended city cars, Nos. 25-27, with side seating, capable of

**Number 2 stops at Chester Road, a tiny wayside station on the semi-rural Media Division.** David H. Cope

one-man operation. Built in 1917 for the Philadelphia Transportation Company but reequipped by PST with four-motor trucks, they are used today as tripper cars.

After the war, suburban development west of Philadelphia took place on a vast scale. Housing developments sprang up everywhere, and in no time PST's interurban atmosphere had almost entirely vanished as the old trolley line was gradually transformed into a rapid transit line.

As a result, the remaining Jewett interurbans and the older Brill center-door cars were replaced in 1949 by fourteen double-ended PCC cars, Nos. 11-24, built by the St. Louis Car Company. Equipped with multiple-unit controls for rush operation, they provided the growing suburbs with the swift modern transportation they so desperately needed.

IN 1953 the PST absorbed the neighboring Philadelphia & Western, after having controlled it for years through stock ownership. Never a real interurban line, the P&W had few, if any, streetcar characteristics. Originally conceived as a steam railroad, it was built as a high-speed electric line, using third rail and operating entirely on standard 56-inch-gage right-of-way. Begotten in 1907 with the then-new 69th Street terminal, the line wandered off for 11.5 miles into the growing residential areas between Upper Darby and Strafford—Bryn Mawr, Villanova, Wayne—with twenty-two St. Louis-built heavy interurbans handling the service.

In 1912 a six-mile extension, controlled by automatic block signals, was opened between Villanova and Norristown, and the P&W was complete. A steel bridge, 3850 feet long, including approaches, was constructed into Norristown, and a separate company, the Norristown Transit Company, formed to operate 1.9 miles of track through the city streets to the terminal of the interurban Lehigh Valley Transit line to Allentown.

Trolley poles replaced the odd-looking sliding-bow contacts, shaped like inverted U's, which had been used for shifting the cars around in the barns. Traffic on the Norristown


# What Strange Powers Did The Ancients Possess?

EVERY important discovery relating to mind power, sound thinking and cause and effect, as applied to self-advancement, was known centuries ago, before the masses could read and write.

Much has been written about the wise men of old. A popular fallacy has it that their secrets of personal power and successful living were lost to the world. Knowledge of nature's laws, accumulated through the ages, is never lost. At times the great truths possessed by the sages were hidden from unscrupulous men in high places, but never destroyed.

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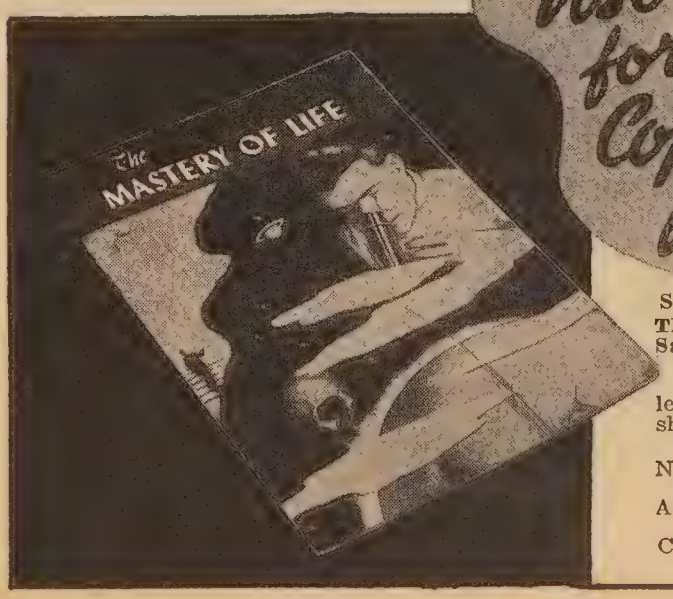


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Steve Maguire

**Time was when the Philadelphia Suburban hauled quite a bit of local freight, but today, with a few exceptions, it operates only passenger service.**

Steve Maguire

**No. 20, former Philadelphia Rapid Transit Company city car, sold to PST in 1942 to relieve car shortage, poses for its picture at Westgate Hills.**

Steve Maguire

**At Sixty-ninth Street terminal the city's subway-elevated line (foreground) meets the Philadelphia Suburban (on horizon). El station is at left.**

line was so heavy that in no time the single-track Strafford portion became a branch line.

In later years, Lehigh Valley Transit cars gave through service over the P&W from Allentown to the 69th Street terminal. Eventually the P&W abandoned street running and built a new Norristown terminal. LVT's Allentown limiteds, however, continued to use P&W's Norristown trackage until 1952 when the LVT was abandoned.

Freight-car interchange with the Pennsylvania is practical, and several industries along the line have bulk products picked up at P&W freight sidings. Sand is occasionally delivered to a nearby golf course, and cars loaded with scrap rail are forwarded to the Pennsy for the journey to the steel mills. Before the growth of highway freight hauling, coal was shipped to on-line coal yards and stone picked up from quarries along the route, but today, for all practical purposes, the line is passenger-only.

The streamlined "bullet" cars, Nos. 200-209, built by Brill in 1932 and capable of 90-mile-an-hour speeds, today form the backbone of the Norristown runs, while ten extensively remodeled 160-series steel cars, built by Brill in the 1920's, hold down the runs to Strafford.

Among interurbans, the PST and the P&W were uniquely fortunate. Running through an area whose population was on the increase, each line was able to operate profitably without the freight business which has kept most other interurban lines solvent.

To date, the only substantial trackage to be abandoned is the PST line between Wesgate Hills and West Chester, and highway construction not falling revenue was responsible for that. Even so, the system is so valuable as a rapid-transit line that no one would dare convert it. Fortunately no one wants to. For many years PST has also run buses, which, by and large, have complemented rather than competed with rail service.

Philadelphia Suburban may well be the last interurban to operate in the United States. It's a great line. The Philadelphians love it and are proud of its history. From all indications, its future is secure. ●

# TRANSIT TOPICS

by STEVE MAGUIRE

Steve Maguire

IN BRIEF. Ken Fry has just bought Cedar Rapids & Iowa City car 111 (mentioned in June issue) to ship to near Wichita, Kan., for preservation and maybe future operation.

Chicago's Cottage Grove Ave. line has gone bus, leaving only three Chicago trolley routes, laments Earl Boone.

Kansas City Public Service Company's 20-year franchise expires Dec. 31, reports Bill Norton, with indications that buses will replace trolleys within three years.

Compiling all-time rosters of old and current K.C. street railways, Roger White, Rte 1, Box 55-a, Maxwell, Tex., asks readers to help him by sending information.

PCC's from K.C. and St. Louis are now running on Philadelphia Transp. Co. route 15, says Joe Petaccio.

Answering a query: PCC's are Presidents' Conference Cars—streamlined, swift, comfortable—designed years ago at the request of street railway presidents to modernize trolley service in hope of checking the trend away from it.

Item in August issue said there used to be two trolley routes between Colorado Springs and Cripple Creek, Colo., but Richard Moore denies this. He says relatives living in the area recall the cars as actually running only between Victor and Cripple Creek, the line serving Colorado Springs being a steam road.

THE LAST regular run on Canada's Grand River and Lake Erie & Northern railways not long ago was made by a five-car train carrying 400 passengers who came to "enjoy for yet another moment the romantic saga of flanged wheels, air whistles, and trolley wire," according to a clipping from the Kitchener-Waterloo *Record*, sent us by D. E. Lebold, New Hamburg, Ontario.

The story mentions "thousands of waving hands greeting the train from back doors of homes along the rail line and at every city, hamlet, and crossing.

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Steve Maguire

**Wilmette Street passenger stop of a four-car train on the Chicago, North Shore & Milwaukee line—a typical old interurban practice. The head car, No. 413, a former diner, was motorized into a passenger car more than ten years ago.**

They were all waving goodbye to an old friend. It was the end of an era—the old order changing, giving way to the new."

"SINCE I became interested in what makes public transportation tick," says Charles J. Lietwiler, 4220 12th Ave. N. E., Seattle 5, Wash., "I have wondered if sometimes your column doesn't give more heat than light.

"Do you really think that Jesse Haugh is a fiend in human shape luring poor Pacific Electric streetcars to their doom? The day of the streetcars in most cities is over, and the day of the buses is likewise near its end. For a while, buses made better time than trolleys and saved money in track maintenance costs, but as time wore on traffic congestion became so heavy that the bus lost any advantage it had. My point is, that to be effective you've got to refute the arguments of the pro-bus enthusiasts.

"The refutation is rapid transit, something that should have been considered in the Thirties when the PCC was developed. Running on open tracks, rapid-transit cars can double the average speed on any line, and, by doubling the number of trips each car makes, wage costs and depreciation can be cut in half. Halving operating costs is something that would knock the props out from under the bus people. This is what management will listen to—not the old routine of 'Save this sacred piece of Americana.' "

FOR the second time in three years, the Oregon Public Utility Commission has rejected the Portland Traction Company's application to give up its service to Bellrose and Oregon City, writes Charles J. Keenan, Portland, Ore.

PTC showed that in 1954 it made $327,710 on freight service, lost $171,002 on passenger service, earned a net profit of $156,708. But PUC decreed, "freight operations unquestionably can and should be made to assume the burden of a passenger deficit when public interest requires continuance of passenger operation. The interurban has become an integral part of the communities which it serves and its abandonment would seriously disrupt their economy and development."

But while PTC service was winning a new lease on life, the Waterloo Railroad, formerly the Waterloo, Cedar Falls & Northern, eliminated its only remaining interurban route. Regular passenger service between Waterloo and Cedar Rapids, Ia., with only one car and few riders was impractical.

THE DEADLOCK between the Los Angeles City Board and the California Public Utilities Commission has finally been resolved. City officials had contended that, if buses were substituted on five rail routes of the Los Angeles Transit System Lines and the Glendale-Burbank route of the Metropolitan Coach Lines, many large segments of private right-of-way would be lost forever to public use in the proposed integrated Los Angeles rapid-transit system. When LATL and MCL finally

agreed to sell their private rights-of-way to the city for $1, the City Board consented to the conversion to buses.

"WHY doesn't somebody compile a complete roster of cars being preserved by fan groups or museums around the country?" asks Max Wilcox, Elyria, Ohio, who is part owner of ex-Cleveland Railways car 4144 and 500 feet of track.

Well, somebody has. The July issue of *Transportation,* publication of the Connecticut Valley Chapter of NRHS, Warehouse Point, Conn., will contain notes and rosters for the fifteen trolley museums in the United States and Canada. Copies will cost $1.10.

Max also writes that Harold Warp has acquired a Connecticut horsecar, a San Francisco cable car with gripper and cable equipment, and one of the abandoned Fort Collins municipal line Birneys for display at his Pioneer Village in Minden, Nebr. Mr. Warp is also said to have bought three horsecars —open, closed, and funeral—in Mexico.

OTTAWA, Ontario, will probably have streetcars in operation for many years to come, according to a report from the Canadian Railroad Historical Association. Although during 1954 eleven old trolleys were retired and eighteen buses purchased, no further retirements are anticipated for some years to come. OTC Chairman David McMillan has said, "Although Ottawa is one of the four (Canadian) cities where streetcars remain in operation, they are still regarded as the safest, most comfortable, and most economical means of urban transport, and one of the few remaining vehicles of travel which allows the passenger to relax during his journey."

EX-SHAKER HEIGHTS Rapid Transit cars 306 and 302, which arrived at Gerald Brookins' Columbia Park Rapid Transit at North Olmstead, Ohio, will be painted cherry red with light gray roofs, black iron work, and gold numbers and lettering, writes Theodore P. Taetsch, 12913 Matherson Ave., Cleveland, Ohio. Track and overhead may be completed by the end of the year.

In Cleveland itself, Shaker Heights Rapid Transit cars can now be seen on the block-long storage extension at Superior Avenue and West 6th Street. The Cleveland Rapid's west side line is nearly ready for service, a 2-mile extension to Lorain and West 143rd Street is now definite, and another extension is proposed to the airport.

JAPAN'S 3-foot-gage Enoshima-Kamakura sightseeing line offers "one of the most interesting trolley rides I've ever had," writes Hubbard F. Thompson, 979 Bayview Ave., Oakland, Calif., who rode the line while on shore leave from a USN transport.

"The route winds around hills, through several tunnels, over deep gorges on trembling, spindly trestles, past religious shrines, and finally stops on the far side of a cliff by the sea.

"The arrival and departure of cars at stops along the line is funny. Each stop has one or two passing tracks, a tiny station, and a stationmaster. Just prior to arrival, there is much shouting, both on the car and the station platform, and then the doors fly open, and the crowds stream out and in. The stationmaster comes out and rings an electric alarm bell to indicate which track will be used. The conductor toots his police whistle, waves a red flag, and pulls the communication cord. Then with a blast of the air horn, away she goes, scattering kids, bicyclists, rickshas, and dogs to the four winds. I don't think the conductor ever figured out what made me laugh."

SERVICE has been inaugurated for a second time on the subway line, originally designed by dictator Mussolini to carry visitors from the center of Rome to a meadow seven miles outside the city, the site of a projected permanent world's fair. In 1951 borrowed equipment went into operation over four miles of track, but lack of patronage forced the line to close only a few months later.

In operation today are seven miles of line, about half of which are underground, and service is maintained by nine streamlined two-car trains, which make close to 60 miles an hour. The fare is 40 lira—about 6½ cents. But the $20 million spent on the subway will do little to relieve congested Roman surface lines since the route doesn't follow the main flow of commuter traffic.

A DOUBLE-DECKER, operated by the old Columbus Railway, Power & Light Company, now Columbus Transit, ran for several years on the High Street line in Columbus, Ohio, writes


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**Among Steve Maguire's souvenirs is this shot he made in 1941 of a two-car Lake Erie & Northern train, headed by No. 955, at Brantford, Ont., Canada. The LE&N ended passenger service on its 51-mile line last April 24th.**

Rev. R. W. Atkinson, Box 206, Mountainair, New Mexico. "If I recall correctly," he says, "the car was built by Kuhlmann of Cleveland, and in those days it took more juice to get the 'battleship' under way than to run an ordinary car two city blocks.

"The car was an attraction for visitors from all over. Put in service in 1914, it could operate only on the High Street line because this was the sole route without railroad bridges, which the car was too high to pass under, and street corner turns, which it was a little too long to negotiate. The conductor had trouble with kids who had a habit of unscrewing light bulbs in the top level and tossing them onto the roofs of passing cars, while the motorman had to leave the car and walk to the other end at each end of the line. In the end the car was scrapped.

"Like other major cities, the last Columbus streetcar made its final run some years ago, and trolley coaches and a few gas buses have taken over. Columbus trolleys, which, as I remember, were varnished yellow and orange, had the reputation of being the cleanest in the country."

Charles W. Yingling

**No. 2 was the pride of Greensburg & Hempfield Electric Ry. in Pennsylvania, opened 1890, that became part of West Penn Traction Co. in 1910.**

BRITISH RAILFANS are trying to buy the Llandudno & Colwyn Bay tramway in north Wales for operation on a revenue basis, writes David Johnson, 3 Roosevelt Ave., Dover, N. H. Funds sent to the Tramway Preservation Committee, 4 Oakleigh Court, East Barnet, Hertsfordshire, England, will be most welcome. Should the project be a failure, contributions will be refunded.

KANSAS CITY PUBLIC SERVICE' 31st Street line and the old Swope Park line, cut back to 48th Street and renamed Rockhill, are still operating, readers Jack Ecker and Robert B. Snapp, Jr., tell us. The KCPS still has seven streetcar routes in operation—56, Country Club; 65, Dodson; 71, Westinghouse-Bendix; 53, Rockhill-8th Street; 55, 31st Street; 50, Troost Avenue; and 59, 12th Street-Jackson. All of these are in Missouri, though the Rockhill-8th Street and the 12th Street-Jackson lines run over into Kansas for a couple of miles.

COMMITTED to buses even before the last war, the Omaha & Council Bluffs Street Railway's remaining two routes have finally been abandoned. Car 1011 made the final round trip between the car barn and Dundee, writes Ray Lowry, 1542 South 26th Street, Omaha 5, Nebr. Most O&CB cars have already been scrapped, but thirty bodies have been sold for use in a boy's summer camp on North 72nd Street. So ends the last electric railway in Nebraska—opened with horsecars in

1867, converted to trolleys in 1888, abandoned to buses in 1955.

LOCAL streetcar service in Vancouver, B. C., ended with the recent abandonment of regular service over the British Columbia Electric's Hastings Street PCC line. Riders were permitted to take their last trip without cost, writes Ernie Plant, Box 40, Horseshoe Bay, B. C. Just what will become of the BCE's 36 PCC cars is anybody's guess, since Detroit hasn't yet been able to sell its much more modern PCC cars in anticipation of conversion to bus operation.

BILLS were introduced recently in the Illinois legislature to save the interurban lines of the Chicago, Aurora & Elgin and the Shore Line of the Chicago, North Shore & Milwaukee. The bills provide for an agency to purchase and operate the Shore Line, and authorize the purchase of the CA&E and its operation by the Chicago Transit Authority in conjunction with its transit network, we learn from Rodger Darling, 1902 South 17th Avenue, Maywood, Ill. If the bills are passed, CA&E passengers will again be able to travel into downtown Chicago without changing to the CTA elevated as they had before the line was cut back to Forest Park. With the restoration of through service, CA&E's $75,000 a month deficit is expected to disappear.

In another Chicago project, engineers have recommended that a 3½-mile-long median strip, from Logan Square to Cicero, be reserved for CTA rapid-transit tracks on the proposed northern expressway.

NEW YORK'S Third Avenue El is gone. The station platforms have been boarded up and the turnstiles and pot-bellied station stoves removed. Lights no longer glow dimly behind the stained-glass windows, and already the rails are a streak of rust in the late afternoon sunshine.

*Railroad Magazine's* offices overlook the El, and we have thought this fitting. She was a real railroad. From above you couldn't miss that. Her track drove straight and clean over the weather-beaten ties through the towers of the city. The rumble of her trains would call us to the windows, and we would watch them rattle out of sight among the buildings above 47th St., or a smudge of smoke, a siren, brought excitement to a sweltering August afternoon, as firetrucks and hoses clustered around to douse a track fire caused by a discarded cigarette.

She wasn't comfortable, she wasn't clean, and she wasn't fast, but once you squeezed past those narrow two-and-a-half-foot vestibules and found a place among the rattan-covered seats, there was sunlight at the windows and the startling panorama of the city's secret life behind the second-story windows. Toward the end, after she had been cut back to Chatham Square and then closed down early in the evening, her riders deserted her, and her trains ran half empty high above the streets.

Today the tracks are silent. Every once in a while a policeman strolls along the footpath to protect her from vandals. A sound of riveting and dynamite deafens the air, for now that New York's most fabulous eyesore is coming to the ground; sleek modern buildings are arising above the saloons and hockshops and antique stores of frowzy Third Avenue. Yet, once she seemed beautiful, with her Chinese cupolas and her measured strutting stride along the street. Some of her beauty still remains for us—in the latticed light beneath her road-bed, in the shadowy jut and thrust and cut of her pillars against the sky. And when, as the *New Yorker* commented, after ten or twenty years our memories have reconstructed her, a faster and more beautiful El will again soar magically among the roof tops, through a city fairer than any of us have ever known.

IN OUR NOTE on horse-drawn trams in a recent issue, the Isle of Man turned up off the south coast of England. But a correspondent writes that it's back again in the Irish Sea—off the coast of Wales—where it's always been. •

Irvin Oscarson

**A pair of Council Crest streetcars, 506 and 501, at Portland, Ore., in 1941.**

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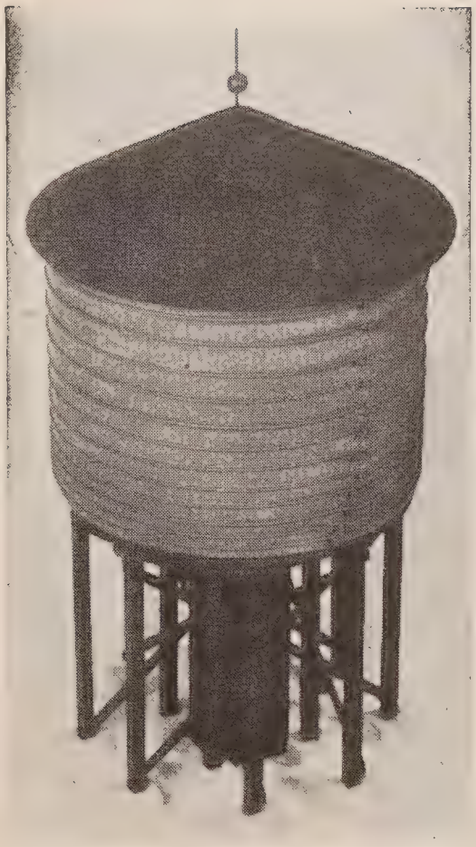

Seven-inch-high tower is startlingly life-like, painted in somber colors.

# BUILD A MODEL WATER-TOWER

by PAUL N. WHITE

OF ALL the structures characteristice of the steam era, none is disappearing from the American scene more rapidly than the wooden water tower. This probably is due to the ease with which it can be demolished as well as its high rate of deterioration and susceptibility to fire if permitted to remain dry. The tank along the Plywood Empire Route is fairly easy to construct. Its prototype, a picture of which appears on page 14, was located at Lincoln Park, N. J., on the Lackawanna. While not unique, it was nonetheless somewhat unusual. Having no spout, it provided water to a water column a short distance away. The trackside column you can buy in kit form at hobby stores.

The tank in HO is about 7 inches high and takes up about 9 square inches of your layout tabletop. For the leg-bracing assemblies of the substructure, you will need 12 legs, ⅛x⅛x3⅛ inches. Be sure the ends are exactly square. To construct the 4 outside-post assemblies, make a full-sized sketch of Fig. 3 on a sheet of Bristol board, and cover it with a sheet of waxed paper to prevent cement from sticking. Lay the two upright pieces in position over the sketch and hold them down with small weights, then cement the two X members, 1/32x⅛-inch Northeastern pine strips, into position as shown. To cement the overlapping member, cement one end first, and, when it is dry, cement the other, holding it in place

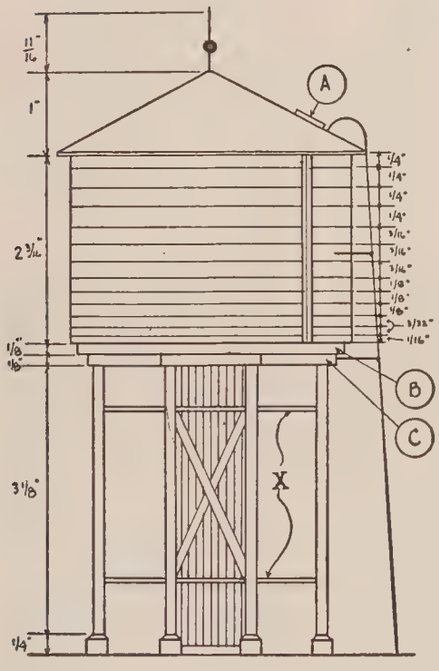

FIG. 7

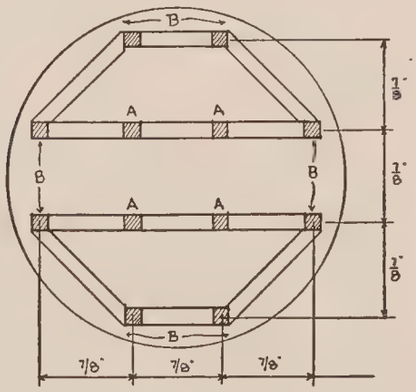

FIG. 2

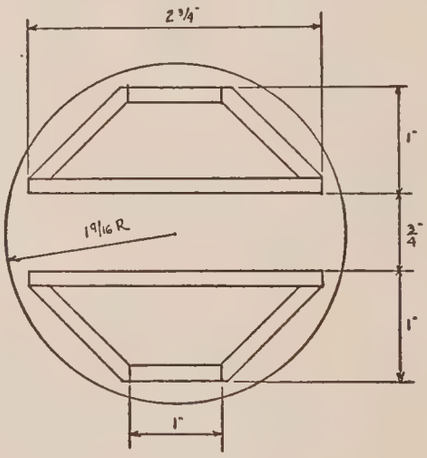

FIG. 1

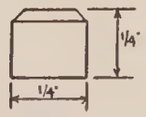

FIG. 4

FIG. 6

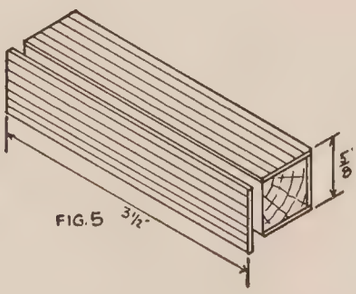

FIG. 5

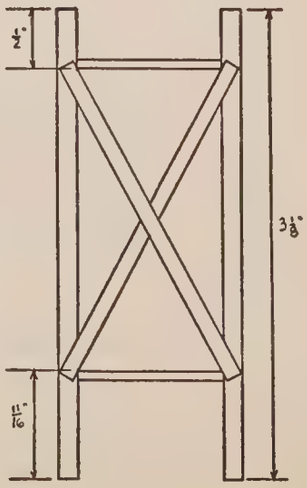

FIG. 3

Pine strips are used for substructure, a 3¼-inch mailing tube for the tank, and brass wire for the braces and finial. Roof should be turned down on a lathe.

with a spring clothes pin until it is dry. Next cement the 1/32x3/32-inch upper and lower cross braces to the rear of the legs.

A circular disc 3⅛ inches in diameter, Fig 1 and B in Fig. 7, made of Masonite ⅛ inches thick, serves as the base of the water tank. Cement the ⅛-inch-square sub-base pine pieces to the disc as shown in Fig. 1. The outside dimension of these strips, to which the legs are cemented, is 2¾ inches. When the strips are in place, lay the disc on a flat surface and cement the four inside ⅛-inch-square posts A-A-A-A into position. These must be exactly perpendicular to the disc, so you'll probably need to support them with something until the cement sets. Next cement the four outside post assemblies B-B-B-B into position, and then, when these dry, the 1/32x3/32-inch cross braces, X in Fig. 7.

Cut 12 footing blocks, Fig. 4, from ¼-inch-square strip pine, file or sand a bevel around the top edges, and cement them to the bottom of each leg. To make the frost box, Fig. 4, cement a 1/16-inch strip of Northeastern scribed facing to each side of a piece of 3½x½x½ pine, and when the block is dry, cement it in the exact center of the disc, between posts A-A-A-A.

A 2 3/16-inch piece of 3¼-inch diameter mailing tube, available at any stationary store, approximates almost exactly the dimensions in scale of the prototype tank. For accurate cutting guide lines, hold a pencil point firmly against the tube, revolve the tube slowly between the wheels of an inverted roller skate, and cut it with a circular or jeweler's saw.

At the same time as you mark the cut-off lines on the tube, rule off 12 other lines for the iron rod braces, according to the dimensions given in Fig. 7. Wrap a piece of very fine brass wire around the tube for each rod brace and twist it tight with a pair of pliers so that it digs slightly into the tube and can't slip. Cut the projecting "twists" of wire as short as possible and tap the ends over with a small hammer. Then cement the tank to the top of circular substructure disc B.

You should get a friend who owns a lathe to turn down the wooden roof for you. It's 3⅝-inches wide and 1 inch high. You can form a cone-shaped piece out of Bristol card, but it's not very substantial. Cement the roof to the top of the tank. Then cut roof hatch A, Fig. 7, out of 1/16x⅜x⅜-inch pine and cement it into place. For the finial, cement a small bead on a short length of brass wire and force the wire into a press-fit hole. The ⅛-inch-wide water-level indicator, which measures the full length of the tank, is made of Bristol board, and marked with India ink, as in Fig. 6. A small wooden block painted flat black serves as the marker. Buy a length of HO ladder at any hobby shop, curve it at the top, and push the two ends into small holes drilled with a pin vise. The two outrigger supports, which hold the ladder away from the tank, are small lengths of brass wire.

Most tanks were painted somberly, so the following color scheme will give a very pleasing effect—substructure, including legs, overhead beams C, and disc B: flat black; footing blocks: cement color; tank: Floquil Diesel Green (a typical Lackawanna color); roof, hatch, and ladder: black.


# No Wonder Folks Rave

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### THE DYING HOBO

BESIDE a Western water tank
One cold December day,
Inside an empty boxcar
A dying hobo lay.

His partner stood beside him
With low and drooping head,
Listening to the last words
The luckless floater said.

"I'm goin' to a better land
Where everything is bright,
Where handouts grow on bushes
And you sleep out ev'ry night,
Where you don't hafta work at all
Or even change your sox
And little streams of whisky
Come tricklin' down the rocks.

"Tell my hasher back in Denver
That her face no more I'll view,
Because I've jumped the fast freight
And I'm a'goin' through.
Ask her not to weep for me;
No tears her eyes must lurk,
'Cause I am headin' for a land
Where you never hafta work.

"Hark! The train is comin'!
I must catch it on the fly!
Farewell, partner, I must leave you!
It ain't so very hard to die."
The hobo stopped. His head fell back;
He'd sung his last refrain.
His partner swiped his hat and shoes
And jumped the eastbound train.

*—Anonymous*

## MAIL CAR

*(Continued from page 6)*

HOW do caboose-riders' wives feel about their men being away from home for two days at a time? Bill Knapke's caboose article in our June issue did not mention this vital topic, but Mrs. D. H. Bergman, Pittsburgh, Pa., covered it rather well in a letter she wrote to *Pennsy* magazine, part of which follows:

"My husband is in his 34th year of PRR service. He is a brakeman on the Conemaugh Division. When he comes in after being out on the road two days he likes to see a smile and a hot drink. If he shows up at two, four or six a.m., I'm out of bed and at the door to greet him as soon as I hear the key. You should see his face light up.

"I am never out while he is away. He has peace of mind. Nor do I fuss when he is tired and just wants to sit and read. Know why? Because a trainman lives part of his life in a caboose with men. The men get used to each other and are friends. And the wife (if she's smart) learns to adjust herself to his ways.

"My husband loves his job. He tells me about the mountains, and the deer he sees, and how beautiful the sky and moon are at night, and the Horseshoe Curve. He has had a few accidents, to be sure, but he is still all in one piece. And he's a grand, good husband." •

SIDE-DOOR cabooses were death traps, according to Bill Cadmus, 2355 Austin Highway, San Antonio 9, Texas. "I had a few years' experience with them while working on all three districts of the Santa Fe's New Mexico Division," he recollects. "When a train with a side-door crummy pulled out of a station the conductor had to catch it on the fly and open the door while he was off balance. The flagman stood out on deck to highball the rear end after the skipper had swung aboard. In case you had a dope bucket, that was another hazard.

"The management contended in those days that platforms were not practical for heavy steel underframe cabooses, where helper engines pushed both ways over Raton Mountain and eastbound over Glorietta, but they sent the death traps on trains from Raton to Las Vegas where helpers were not used. In 1902, when I worked for the Pennsy, they pushed ore trains from Ashtabula to Austinburg, using their famous dinky cabooses to sustain the force of two H4 locomotives equal to a small Mallet.

"Regarding caboose cookery, I had such a job on the Clinton-Gilman local of the Illinois Central's Chicago Division in 1922, '23, and '24. Contrary to regulations, our caboose was equipped with a three-burner oil stove. As rear brakeman for the late Conductor 'Baldy' Flora I was elected cook.

"Many way stations boasted commissary stores for all supplies, even pure cream and choice fresh beef, pork, and poultry. I could dish up a fine hot dinner 22 minutes after the water started to boil. One of my caboose specialiries was a delectable hash made of creamed mashed potatoes and ground roast beef. Dessert was usually a fruit gelatine. For breakfast I would serve ham and eggs or sausage, or both, or buckwheat cakes with real maple syrup —not the half-and-half kind you buy in chain super-markets today—and, of course, coffee.

"One winter day when we were switching at Gilman, Ill., a truck rattling over a grade crossing upset an oyster tub. The driver righted it and rolled on, leaving behind a nice heap of oysters in the snow. I saw it happen. Dashing over to the caboose for a container, I filled it up and later served a tasty meal of fried oysters, much to the crew's surprise and delight."

Further recollections come from C. S. Chard, 4 Stirling, Ont. Canada: "One winter evening in 1907 as I reported for duty on the owl trick on the Temiskaming & Northern Ontario (now Ontario Northland) at Moose Lake, the day man said I'd have to stay on duty for the next few days, because he was going home to visit his girl.

"At noon, while the way freight was switching, I stood on the station platform talking to Conductor Paddy O'Hara. The front end of 20 or more loads began backing up. Paddy swung them back—very rapidly, I thought. The caboose was standing alone with its brakes set and the rear brakeman was getting dinner ready for the crew.

"I heard a loud crash. The brakie jumped out the back door with a few salty epithets telling the world what he thought of certain railroad men who cared so little about a freshly cooked dinner that they let cars ram the caboose and dump the food on the floor —and no more victuals could be bought within 40 miles! He told Paddy, 'If you want to eat off the floor, you're welcome to do so.'

"Paddy said to me, 'That hogger must have mistaken my signals. I was only backing him slow, wasn't I?"

" 'You were doing fine, Paddy,' I replied, 'until you hit the doghouse.' And that was caboose cookery on the old T&NO." •

**Barbara Milgrom**

BORN in a railroad town, Rocky Mount, N.C., and daughter of a former Pennsy conductor, Barbara Milgrom takes naturally to railroading. "I like initiative and progress," she tells us. "When I learned that the Atlantic & Danville (now a 207-mile diesel-powered freight road) was ending its Southern Railway lease and resuming independent operation, I admired its spunk for going on its own in an age when big companies were swallowing little ones and I said to myself, 'This is the road for me.' So I hired out as a comptometer operator. •

"My grandmother ran a room-and-board house for railroaders at Rocky Mount, on the Atlantic Coast Line, which owned the YMCA there. In those days a callboy would personally find the train crew members and make them sign his book, instead of phoning them. The men carried pocket watches, which, under company regulations, were not to gain or lose more than 30 seconds a month. A group appointed my mother official watch collector. Once a month she'd take them all to the jeweler's to be checked.

"When I started working for the Atlantic & Danville I was the only single girl, and the other employes have been trying ever since to get me married. •

HENRY M. Flagler built a marvelous oversea railway from Miami on the Florida mainland to Key West, 152 miles, in 1906-'12," writes E. J. Quinby, 30 Blacburn Rd., Summit, N.J. "Most of this distance was out over the open sea, hopping from one island to another on stout concrete viaducts but spanning deep channels with costly steel structures. There were four drawbridges.

"At the Key West terminal, Flagler built a vast railyard with 32 tracks and two marine loading slips for his three sea-going car-ferries to cover the re-

maining 90 miles to Havana. So well did he build, despite the havoc of tropical hurricanes, that those stout structures stand intact today as good as ever (but now without rails). Total bill, $50,000,000 of Flagler's personal funds, for a marvel of pioneer engineering.

"Now the New York City Transit Authority is rebuilding the Long Island Rail Road trestle across Jamaica Bay to Rockaway Beach—about five miles of much less difficult construction work. Total estimated bill to the taxpayers, $52,000,000!"

MOST EXCITING night in his 39 years of brass-pounding was Nov. 7, 1921, when he was working as an Illinois Central operator and towerman at Paxton, Ill., recalls Albert G. Hill, 4825 Cypress Street, La Mesa, California.

Albert G. Hill

"Our passenger train No. 3 passed on time at 8:52 p.m.," he writes, "but about ten minutes later I noticed that the block signal just south of the tower was still showing yellow. I told the dispatcher that Three must have stopped. Then I asked Rantoul, 11 miles south of us, for an OS on her. Back came the answer, 'Not yet.'

"About that time I got a call on the city phone from a farmer who said, 'Your train is stopped here and seems to be burning! Now I hear a lot of shouting. Looks like a hold-up!'

"I promptly called the sheriff and the dispatcher. Fifteen minutes later I heard our Ludlow agent tell the dispatcher that No. 3 had been stuck up and the engine cut off and run ahead across a creek. The engine crew were then herded alongside the engine and told to stay put. But when the bandits relaxed their vigilance, the fireman climbed into the cab and ran the engine to Ludlow, arousing the town with his whistle, and notified the dispatcher by phone.

"Meanwhile, the bandits, unable to open the mail car, had set it afire by tossing in some flaming oil-soaked substance. The clerks then surrendered and opened the door. After plundering the mail sacks, the robbers fled in waiting automobiles. The mail car was badly burned.

"The engineer, Fogarty, showed up at Ludlow. He said he had hidden under the engine and had ridden there while the fireman ran her. The two men then went back, picked up their train, and proceeded. Were the bandits captured? I don't know. Maybe some reader can tell me.

"The incident came to mind when I saw a mention of engineer Fogarty in Ernest M. Dolan's true tale, 'Still a Hogger at 82' (May issue)." •

A STRAY DOG named Bosco boarded a car loaded with lumber at Goodwater, Okla., on the Central of Georgia, was locked in, and did not emerge until the lumber arrived at the Acme Steel plant in Chicago. The trip took 14 days, during which time Bosco had no food, water, or even light. But he still could bark. Acme employes had great difficulty in removing the lumber so as not to hurt him. Then the animal was nursed back to health. Bosco is now honorary chief of the Acme Steel Railroad. A photo that appeared in *The Right Way,* Central of Georgia magazine, shows him wearing glasses and seated at a desk. His chief duty is to act as a one-dog reception committee for visitors.

Another dog, Brownie, a 17-year-old mongrel, won't be meeting the Lehigh Valley's *Black Diamond* any more. Brownie is dead—killed by the train he faithfully met for more than 10 years.

The dog met the train each night to munch on bones and table scraps dining car cooks fed him. •

A NEW RECORD in bridge replacement was made the other day, we are told, when 220 tons of steel bridges were removed and replaced in one day on the Tidewater Southern at Meyers Crossing, near Escalon, Calif., with only a 30-hour delay to trains. Temporary wooden piers were built along one side to support the old bridge when lifted from its supports. The new span was built from turntable girders removed from Western Pacific roundhouses at Elko and Winnemucca. This partly answers the question: What happens to old turntables when a railroad changes from steam to diesel locomotives? •


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Albert Farrow

**Last run of Cowlitz, Chehalis & Cascade was caboose hop May 9, 1955, with 4-8-0 engine 20, shown over Cowlitz River near Mayfield, Wash.**

KOREA HEARD FROM. "I've been reading *Railroad* for years and wouldn't miss a copy, especially in this forsaken land, where I am stuck with a job of Army tugboat captain," writes a former Union Pacific fireman, Richard L. Morse, W-2144062, Inchon Port, 813d AU, Harborcraft Detail, APO 971, San Francisco.

"I am one of many frustrated 'rails' who run trains in imagination through the pages of *Railroad Magazine*. Stewart Holbrook, author of 'Engine Smoke in the Big Woods' (August issue), is a neighbor of mine at Portland, Ore. The other day my Dad, who also reads *Railroad*, sent me a clipping from the Portland *Oregonian*. I pass it on to you."

This clipping describes the last run of the steam-powered Cowlitz, Chehalis & Cascade in Washington State. The CC&C, established in 1908, carried billions of feet of timber during its 47 years. The final run was no rollicking romp. Manager W. N. Bichler told the crew to "take it easy" and use all day, if necessary, for the 39-mile trip. He pointed out that some parts of the road were in good shape but others were not. The CC&C will sell or junk its three engines, two cabooses, two flatcars, one "cherry-picker" (crane), old rails, one engine-house blackened by age, and right-of-way. •

ANOTHER Oregon "rail" also writes about a logging road. "Some time ago you listed the Coos Bay Lumber Co. as having five steam locos," says Lloyd S. Graham, Box 311, Coquille, Ore., who is a conductor on that line. "We still do, even though we received three EMD switchers last year; but four of the steamers are stored in the roundhouse, where photographers can't get to them, while the fifth is kept outdoors, exposed to the elements." He adds wistfully: "In this diesel age, we can look only to *Railroad Magazine* for stories and pictures of steam railroading." •

GENE AUTRY, himself a former railroad telegrapher and station agent, is now the owner of the Shenandoah Central, a mile-long railfan line in Virginia with a steam locomotive known as "Tweetsie." Gene is moving it to Hollywood for use in movie productions. He bought it after the line had carried 17,000 passengers in two seasons but had to fold up because of failure to pay its way. •

ADDING to the list we printed some time ago of railroads that bisect or run beneath graveyards, Herman Diers, 4722 Chesapeake St., N.W., Washington, D.C., writes: "The Pennsy branch of the Washington-Baltimore line just outside of Baltimore city limits runs through the large Loudon Park Cemetery. This cemetery had a private trolley line, which in itself was a rare situation. A single car running on standard-gage track did not connect with any other line. No other cemetery that I know of had its own trolley service." •

PREDICTION. The familiar wayside railroad signal devices you see now may one day be past history, said F. W. Baughman, vice president of Union Switch & Signal Co., Swissvale, Pa., addressing the American Institute of Electrical Engineers. His subject was Centralized Traffic Control.

"CTC," he declared, "is a system in which the dispatcher, located at a central point, directs the movement of trains over his territory by means of remote control of wayside signals. Some of the locomotives hauling these trains are equipped with cab signals, which repeat for the engineman in his cab the

indications of the wayside signals. In effect, the dispatcher controls the miniature signals in the locomotive cab. We anticipate a favorable future for cab signals. The trend could well be in the direction of replacing most of the wayside signals." •

NOT MANY girls of our acquaintance have more railroading relatives than Miss Wilma Jean McReynolds, Box 125, Doran, Va., winner of honorable mention in a railroad safety contest. Her essay states in part:

**Wilma McReynolds**

"My Dad is a Norfolk & Western freight brakeman. It means very much to me to have him work safely. In our family of five, he is our only dependence for food, clothing, and education."

Besides her father, Wilma's railroading kinfolk include one grandfather, a locomotive fireman; two uncles, conductors; two other uncles, brakemen; a fifth uncle, B&O special agent, and a telegrapher cousin. All but the special agent are N&W employes. Wilma is a high school senior. After graduation, she plans to work for the Norfolk & Western as either a telegrapher or a secretary. •

DESPITE a few exceptions, the trend toward consolidations continues. Not long ago the Nashville, Chattanooga & St. Louis (1032 miles) merged with the Louisville & Nashville (4737 miles). And now the Santa Fe (13,076 miles) has acquired control of the Toledo, Peoria & Western (239 miles) by buying 82 percent of its stock, having established (in 1927) a connection with the TP&W at Loma, Illinois. •

OWEN DAVIES, a Chicago bookstore proprietor, specializes in railroadiana. We found his story in *Tracks*, the Chesapeake & Ohio magazine. His railroad library includes 5,000 timetables, 2,000 books. 6,000 stock prospectuses, travel brochures and annual reports, and 8,000 passes, 200 of which are rare. One of his passes had been issued to Jay Gould by the Silverton, Mo., Railroad. This one is solid silver. Davies sold it to Lucius Beebe. His oldest book, *A Practical Treatise on Locomotive Engines upon Railways,* was published in 1836. His customers are mostly railfans, a few Hollywood movie producers. •

HE KNEW MORSE. "The story is told of a telegraph operator who bid in on a job which was a joint office with the Santa Fe," writes Gerald M. Needle, brass pounder, 6930 Orion Ave., Van Nuys, Calif. "He had worked there only a short time when a man came into the office and asked if No. 4 was on time. The operator tapped out a message in Morse to the dispatcher: 'Some baldheaded so-and-so wants to know if No. 4 is on time.' The dispatcher said, 'Yes,' but before the op could relay this fact to his visitor, the bald-headed man said: 'That's all right. I got it.' Later, the operator learned that he had met the Santa Fe division superintendent." •

THE NELLIE BLY, Pennsylvania-Reading Seashore Lines train that runs between New York and Atlantic City, is still operating, despite a statement to the contrary in *Along the Iron Pike* last issue. New Jersey Public Utilities Commission authorized the abandonment of one of the two passenger trains on that run. P-RSL decided to keep the *Nellie Bly*. •

CONTRAST. "Yesterday I saw a four-unit Southern Pacific diesel going out with around 100 freight cars, many of them loaded," laments David L. Joslyn, retired SP photographer, 2164 Castro Way, Sacramento, Calif. "Just two months ago I saw the same train leave with a 4200 Class cab-ahead steamer on the front end—and what a difference! A fair-sized crowd lined up then to watch the steam engine get under way, but not more than a dozen persons even glanced at the diesel, and they seemed to be annoyed because the train kept them up from crossing the tracks." •

AUTHOR of "Wrecker Crew" (page 24), Adrian E. Allen, 115 E. Central Ave., Missoula, Mont., has worked for railroads for about a year, mostly as a car-repair helper in Great Northern and Northern Pacific shops. He comes from a railroading family, his Dad having been a division super's secretary. Two of his sisters married railroaders.

"On one occasion," he recalls, "when a Z-7 locomotive tender was derailed, I worked with the wrecker crew. We carried lots of blocks and the big hook


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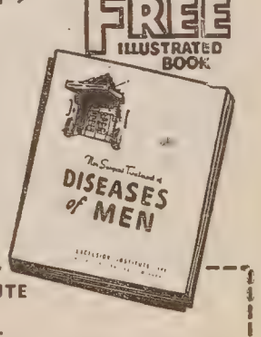


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frogged it back onto the rails. Thus I learned first-hand about the job of wrecker crews.

"How did I happen to cover the pile-up I wrote about? Well, I knew the crew men, having worked with most of them. Their cook, George Melder, tipped me off that the big hook was called out and I arranged to go along, with my camera." •

D&H ENGINE photo published in our June issue, page 70, was taken about 1912 at Poultney, Vt., according to Andrew Merrilees, 189 Old Weston Rd., Toronto, Canada, president of a firm which sells locomotives, cars, rails, etc., for industrial lines. He writes: "In 1916 this engine, No. 60, was transferred to the Quebec, Montreal & Southern, a Delaware & Hudson subsidiary here in Canada, and she was scrapped at Sorel, Que., in 1926."

Also commenting on our June issue, many readers point out that the New York City elevated curve pictured on page 27 was torn down years ago, and the New York Central train shown on page 66 at High Bridge in the Bronx section of New York City was actually heading south, not north as our caption stated. We appreciate corrections. •

MISS RAILROAD MAGAZINE for October is Jayne Galuppo, 230 E. 2nd Ave., Roselle, N.J. Jayne is a 24-year-old stenographer. Her father, Joseph, is superintendent of the Jersey Central's busiest division, the Central, while her Uncle John is assistant terminal trainmaster at Jersey City, eastern terminus of the 629-mile system. Both men have been railroading for more than 35 years and, as Jayne puts it, "they talk, eat, and sleep railroading."

**Joseph Galuppo**

"During the summer of my college years," she says, "I earned spending money by working for the Jersey Central as a relief stenog, and after graduation I hired out to the railroad in the Mechanical department. Two years later I switched to the Operating department, and I am now in Freight Traffic."

Since writing the above, Jayne has moved again. She's the type of Miss who wants a variety of experiences before she settles down. •

"DESPITE my 19 years as a railfan," writes Ted H. Strauss, 5552 Netherland Ave., Riverdale, N.Y., "I have only just discovered *Railroad Magazine*. I am delighted. It answers a need I have long felt for a well-rounded magazine devoted to North American railroading. I enclose a check for a subscription and I look forward to many hours of pleasure." •

UNUSUAL TRAIN ORDER. The following general order (Train Advice No. 776) was issued at Christchurch, N.Z., by F. G. Clark, district traffic manager of New Zealand Railways, for April 16, 1945:

**In connection with the death of Mr. F. D. Roosevelt, President of the United States of America, all trains running on any portion of the Railway Line must be brought to a standstill at 11.0 a.m. and remain motionless for a period of two minutes. No train is to be started between 11.0 a.m. and 11.2 a.m.**

**In order that passengers shall be aware of the purpose for which trains are brought to a stand, guards must make suitable announcement in cars on their trains prior to 11.0 a.m.**

**No work of any kind is to be carried on, and every member of the Railway staff (whether permanent or casual) must cease work and stand reverently by during the two minutes period.**

A. C. Bellamy, Buller Rd., Reefton, West Coast, N.Z., sent us a copy of this order. And now we hear from an old retired Santa Fe engineer, James C. Stewart, 6665 Long Beach Blvd., Long Beach, Calif.:

"A Dallas & Gulf operator asked recently in *Railroad* if anyone had a train order older than his of March, 1888. I own some Chicago & Alton flimsies of 1876. I sent them to an Alton-GM&O official in Chicago to copy, at his request. He promised to return them, but hasn't done so yet. They came from my father, who was a C&A conductor in 1876. I also have some Santa Fe train orders prior to '88." •

ENGLAND HEARD FROM. Arthur G. Wells, 64 Marturs' Field Rd., Canterbury, Kent, England, writes: "My first introduction to *Railroad Magazine* was in 1935, when I found two old copies in a pile of second-hand woodpulps in the local Woolworth's under a card which read 'Yank Magazines — Interesting Reading — 3 d' (which was 6 cents in those days).

"Those two copies of *Railroad* contained more fiction than fact, but what attracted me most, apart from my love of railroading, was the fact that each

Central of Georgia Railway

**The town of Alexander City, Ala., at its own expense, erected this fine new passenger-freight station and gave it to the Central of Georgia, replacing a shabby old depot. No other community we know has made such a gift to a railway built many years before.**

**Piquant Miss Jayne Galuppo is the super's daughter on the Jersey Central's busiest division.**

issue carried—as do the present-day issues—a complete locomotive roster of some U.S. railroad. Those old magazines, the story goes, used to come to England as ballast in otherwise empty or partly empty ships. Western and detective pulps were especially common in the lot. In fact, I searched all of our local Woolworth stores at that time but did not turn up more than those two *Railroads*.

"Since then I have accumulated 39 bound volumes of this magazine, occupying seven sq. feet of shelf space in my bedroom. I do not like your fiction or your human-interest photos, but I enjoy your rosters, *Mail Car, Information Booth,* and other factual material and photos."

We thought we were well out in front with our policy of using occasional human-interest photos, but *British Railways Magazine,* published at 222 Marylebone Rd., London NW1, England, and selling for a nominal sum, goes much further than we do along that line. A recent issue of the magazine carried a total of 43 photos, 40 of which, including the front cover, showed people. •

OWL EXPRESS. This strange incident comes from Arthur J. Richards, 21 Briarfield Rd., Tyseley, Birmingham, England:

"Passengers waiting recently for the evening express from London were much surprised when it pulled up at New Street station here. They saw a large bunch of feathers entangled between the locomotive handrail and the firebox door. Closer inspection revealed an owl.

"Releasing this bird, the fireman found it was frightened but apparently unhurt. He carried it into the cab, placed it in the toolbox, and took it to the Wolverhampton roundhouse as a mascot. Enginemen there are taking good care of it, bringing dead mice and other tidbits.

"I asked how the owl had been caught. The fireman told me that when approaching a tunnel near Rugby he had seen something—which must have been the owl—fly across the tunnel mouth in front of the engine. Held firmly by train speed and wind pressure, the great bird outside the cab had ridden over 30 miles to Birmingham." •

BRITISH railway fiction is practically non-existent, except to a slight degree in the juvenile field, reports B. Murton, 7 Allendale Rd., Plymouth, Devonshire, England, adding that his "introduction to *Railroad Magazine* in 1934 came as manna from Heaven."

Murton is right. British railway fiction is so rare that when a London edition was published recently of one of Freeman Hubbard's American books, *The Train That Never Came Back and Other Railroad Stories,* page one carried a patriotic appeal for British writers to supply material for a somewhat similar volume of *British* railway tales.

"I have 265 issues of *Railroad Magazine,*" Murton says, "some dating back to 1932, but I regret the sharp cut in the amount of fiction it has published during the past few years."

We now hear from Southern Pacific brass pounder Harry Bedwell, Rte. 1, Box 114, Gaston, Ore.: "I believe there is a far greater demand for good railroad stories than many editors realize. Until about 130 years ago America hadn't a single railroad. We grew to our present size and strength in that short time because we solved the problem of inland transportation. If we hadn't, we would probably be made up of small countries snarling at one another, like those in Europe. It took courage and constructive genius to span our continent with steel rails. There is enough material here for a thousand books, not to mention short stories that could be written." •

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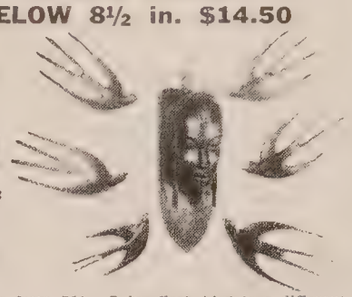

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## C.-C. NARROW-GAGE

*(Continued from page 43)*

smith's, just in case. While eight or ten bullets were located, the pistols examined revealed only three empty chambers. The local newspaper remarked, "This would indicate cool work on the part of the combatants."

While Moore won this round, his financial resources were gone, and a few weeks later he left Nevada after building ten miles of railroad and grading another twenty miles.

The following spring, the N&O signed another contract with Moore, and by fall, the railroad, running 31 miles between Reno and Oneida, was complete. After only a few months, the Santa Cruz needed repairs and no more trains were operated for some time. By April, 1883, the finances of the line were in such bad shape that the Morans took steps to foreclose, while Reno merchants attached the *Santa Cruz* but luckily consented to rent her to the N&O. A year later, the line was sold to the Moran Brothers and renamed the Nevada & California, and extended northward. Amedee, reached in 1890, was the railhead for a decade.

In March, 1888, the Morans incorporated the Nevada-California-Oregon Railway, but legal difficulties prevented the transfer of the N&C property to the new corporation until January, 1893.

ABOUT THE TIME work started on the N&C, the Sierra Valley & Mohawk Railroad Company was formed to develop the iron ore and timber in the Feather River country. Plans called for a sixty-mile narrow-gage railroad from Plumas Junction, near Chat, on the N&O to Mohawk, with an eventual extension to Quincy. Construction began in 1886, and fifteen miles was laid before the line was sold at foreclosure in 1889. *Poor's Manual* listed the SV&M as abandoned until 1895 when a new company, the Sierra Valleys Railway, was formed, which extended the line to Clairville and then to Clio.

But within a few years the Sierra Valleys was in financial trouble again, and in 1901 passed into the control of the NCO which, before building a three-mile extension to Davies Mill (Graeagle) and making a survey to Mohawk, absorbed it as the Sierra Valley Branch in 1915.

The Sierra Valleys was operated even more casually than the NCO itself. Trains were never on time, and once, when one did appear on schedule, everone insisted it had to be last week's train. Another time, after a heavy snow storm at Clio, a patron asked the superintendent when the snow would be cleared away. The answer was, "The Lord brought it; we'll let Him take it away." And so they waited.

Once under Moran control, the NCO began to expand northward, reaching Madeline in 1902, Alturas in 1908, and Lakeview in 1912. For a year or so, with 275.11 miles of track, the NCO was one of the longest narrow-gage lines in the United States.

But the road was no sooner com-

### LOCOMOTIVES OF THE NEVADA-CALIFORNIA-OREGON

| Number | Type | Builder | Builder's Number | Date | Cylinders | Drivers | Engine Weight | Tractive Effort | Boiler Pressure |
|---|---|---|---|---|---|---|---|---|---|
| — | 0-6-0 | Porter-Bell | | 1875 | 10x14 | 28 | 30,000 | | 140 |
| 1 | 4-4-0 | Baldwin | 7527 | 1884 | 12x18 | 44 | 41,600 | 6,660 | 130 |
| 2 | 4-4-0 | Baldwin | 7528 | 1884 | 12x18 | 44 | 41,600 | 6,660 | 130 |
| 3 | 4-4-0 | Baldwin | 8791 | 1887 | 12x18 | 44 | 41,600 | 6,660 | 130 |
| 4 | 2-8-0 | Baldwin | 9519 | 1888 | 16x20 | 38 | 82,000 | 15,460 | 135 |
| 2d 4 | 4-6-0 | Baldwin | 17124 | 1899 | 15x18 | 44 | 72,690 | 12,500 | 160 |
| 5 | 4-6-0 | Baldwin | 17123 | 1899 | 15x18 | 44 | 72,690 | 12,500 | 160 |
| 2d 6 | 4-6-0 | Baldwin | 22020 | 1903 | 15x20 | 44 | 72,690 | 12,500 | 160 |
| 7 | 4-6-0 | Baldwin | 22012 | 1903 | 15x20 | 44 | 72,690 | 12,500 | 160 |
| 2d 8 | 4-6-0 | Baldwin | 31445 | 1907 | 16x20 | 44 | 87,150 | 17,800 | 180 |
| 9 | 4-6-0 | Baldwin | 34035 | 1909 | 16x20 | 44 | 87,150 | 17,800 | 180 |
| 10 | 4-6-0 | Baldwin | 34528 | 1910 | 16x20 | 44 | 87,150 | 17,800 | 180 |
| 11 | 4-6-0 | Baldwin | 37394 | 1911 | 16x20 | 44 | 89,200 | 17,800 | 180 |
| 12 | 4-6-0 | Baldwin | 37395 | 1911 | 16x20 | 44 | 89,200 | 17,800 | 180 |
| 14 | 2-8-0 | Baldwin | 41300 | 1914 | 17x20 | 40 | 94,000 | 21,000 | 180 |
| 22 | 4-6-0 | Schenectady | 5399 | 1899 | 16x20 | 42 | 85,000 | 18,650 | 180 |
| 23 | 4-6-0 | Schenectady | 5420 | 1900 | 16x20 | 42 | 85,000 | 18,650 | 180 |
| 24 | 2-6-0 | Schenectady | 4956 | 1899 | 20x28 | 63 | 128,180 | 28,710 | 190 |
| 25 | 2-6-0 | Cooke | 2435 | 1899 | 20x28 | 63 | 128,180 | 28,710 | 190 |
| 26 | 2-6-0 | Cooke | 2553 | 1900 | 20x28 | 63 | 128,180 | 28,710 | 190 |
| 27 | 2-6-0 | Cooke | 2608 | 1901 | 20x28 | 63 | 128,180 | 28,710 | 190 |

### SIERRA VALLEYS RAILWAY

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| 1 | 2-6-0 | H. K. Porter | 375 | 1880 | 12x16 | 36 | 36,000 |
| 2 | 2-6-0 | H. K. Porter | 376 | 1880 | 12x16 | 36 | 36,000 |
| 3 | | | | | | | |

### NOTES ON DISPOSITION

— "Santa Cruz." Originally Santa Cruz & Felton. Sold to N&O, 1881. Sold to Manning & Berry, 1882, under sheriff's sale. Leased to N&O until about 1885. Resold to Lake Valley Railroad as No. 4, to Hobart Mills Co., and to Nevada County Narrow-Gage. Scrapped, 1915.

1, 2 Ordered by N&O. Retired in 1915 and 1918 respectively. Scrapped, 1929.

3 "Erasmus Gest." Ordered by N&C. Retired, 1918. Restored, 1923. Sold to SP, 1929.

4 "Charles Moran." Ordered by N&C. Sold to Tonopah Railroad, 1904. Resold to Sumpter Valley, 1910, as No. 3. Out of service, 1918. Retired, 1930.

2d 4 "Comyn." Originally NCO 6. Renumbered 4, 1904. Sold to SP, 1929. Scrapped, 1934.

5 "Amedee." Rebuilt, 1925. Sold to SP, 1929. Scrapped, 1934.

2d 6 Originally NCO 8. Renumbered 6, 1907. Sold to SP, 1929. Scrapped, 1934.

7 Sold to SP, 1929. Scrapped, 1935.

8 Sold to SP, 1929. Restored, 1930. Laid aside, 1954.

9 Sold to SP, 1929. Restored, 1930. Held for standby service, Owenyo, Calif.

10, 11 Sold to United Commercial Co. by 1929. Resold to Pacific Coast Railway as 110 and 111. Resold to Oahu Railway & Land Co., Honolulu, Hawaii.

12 Sold to SP, 1928. Renumbered 18. Retired, 1954. Exhibition locomotive, Independence, Calif.

14 Sold to SP, 1928. Renumbered 1. Resold, 1933, to Nevada County Narrow-Gage as 9. Resold to Oahu Railway & Land Co. about 1943. Resold to U. S. Navy, 1944, and reported sent to Africa.

22 Originally Florence & Cripple Creek 22, the "Vindicator." Sold to NCO, 1915. Restored, 1925. Sold to SP, 1929. Drivers increased from 42 to 45 inches, 1937. Dismantled, 1949.

23 Originally Florence & Cripple Creek 23, the "Granite." Sold to NCO, 1915. Retired, 1921. Scrapped, 1929.

24 Ex-SP 1618. Standard-gage. On NCO 1927-1929. Scrapped, 1936.

25 Ex-SP 1667. Standard-gage. On NCO 1927-1929. Scrapped, 1930.

26 Ex-SP 1670. Standard-gage. On NCO 1927-1929. Scrapped, 1933.

27 Ex-SP 1638. Standard-gage. On NCO 1928-1929. Scrapped, 1934.

NCO locomotives, unless otherwise noted, retained their old numbers on the SP.

#### SIERRA VALLEYS RAILWAYS

The "Mohawk," apparently a converted standard-gage engine, was used in the construction of the Sierra Valley & Mohawk, but nothing is known about her.

No. 1, the "Plumas," and No. 2 were originally Oregon Railway's No. 2, the "Dallas," and No. 3, the "Scio." Sold as Oregonian Railroad 6 and 7 to the SV in 1895. When one of these locomotives, presumably No. 2, was wrecked in 1899, No. 3 was purchased as a replacement. Records indicate the SV had two locomotives until 1910, and that another was leased from 1912 to 1914.

This roster was compiled by Charles E. Fisher, President, Railway & Locomotive Historical Society, and by David F. Myrick.

pleted than the tide began to turn. Between 1909 and 1914 both the Western Pacific and the Southern Pacific built into NCO territory. Neither road made any effort to drive the narrow-gage line out of business—as a matter of fact the joint rate divisions were unusually favorable to the NCO—nor did the Interstate Commerce Commission or shippers along the line exert any pressure to have freight rates lowered, though they were certainly high, but the arrival of competition marked the beginning of the NCO's time of troubles.

NCO found itself faced with a number of rather unique problems. Most of its traffic was southbound, and freight had to be reloaded from narrow-gage to standard-gage cars at Wendel or Hackstaff. Actually the cost of reloading was less than might be supposed. Livestock, comprising the bulk of the traffic, moved from one car to another under its own power, and even the cost of reloading lumber—twenty-five cents a ton in 1909—seems modest by present-day standards. At Wendel the road built what was called the "high line" to permit the reloading of wheat cars by gravity, but the custom and equipment of the country was geared to handling grain in sacks, rather than in bulk, and ranchers were reluctant to change their methods. A dry cycle overtook the area, and the country gradually became fenced in, making cattle drives increasingly difficult.

The NCO main line was especially vulnerable to rain and snow, and it was not uncommon for the road to be snowed up for days at a time during the winter months. Perhaps the worst tie-up occurred January 10, 1916, when a train failed to get through a heavy snow drift near Davis Creek. A helper locomotive was sent to the rescue, and the two locomotives, coupled together, rammed into the drift in an effort to clear the line. The lead locomotive was derailed, and the line remained closed until February 10. At such times the NCO didn't indulge in any frenzied, around-the-clock, hell-for-leather effort to restore service, perhaps because the times were somewhat more leisurely, but more probably because


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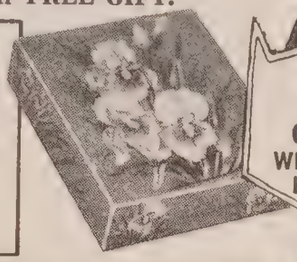

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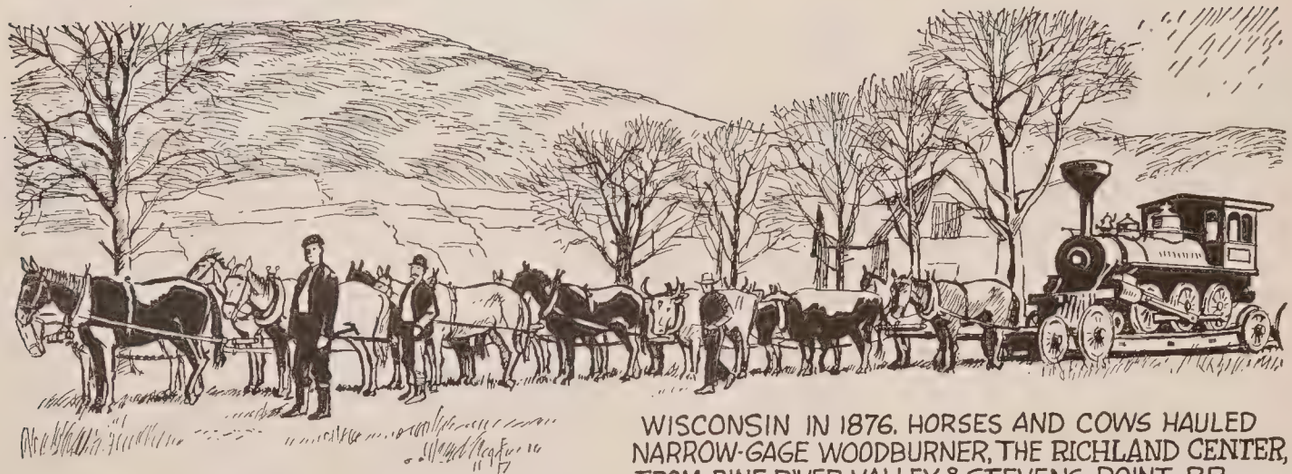
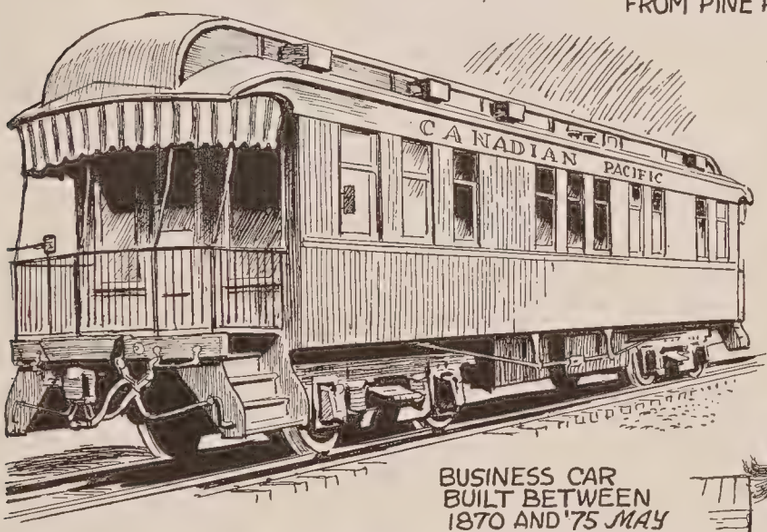
# Along the Iron Pike

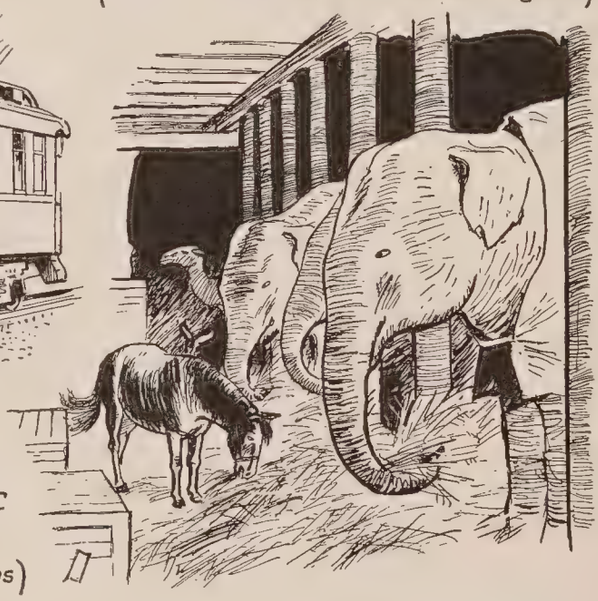
by Joe Easley

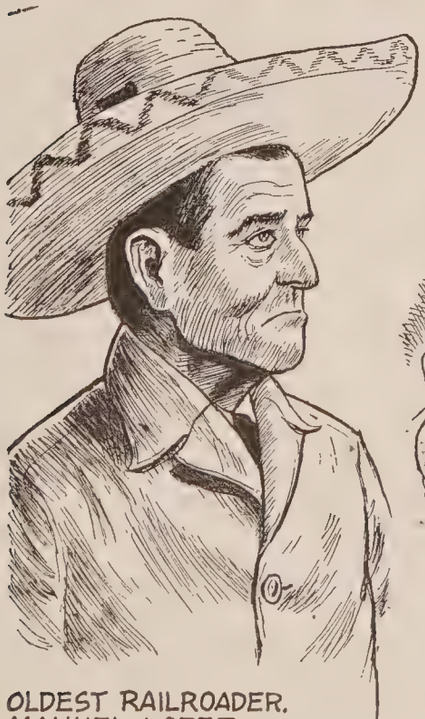


WISCONSIN IN 1876. HORSES AND COWS HAULED NARROW-GAGE WOODBURNER, THE RICHLAND CENTER, FROM PINE RIVER VALLEY & STEVENS POINT RR. OVER BARE GROUND TO AN EXTENSION. (from John R. Adams, Milwaukee Road Magazine)



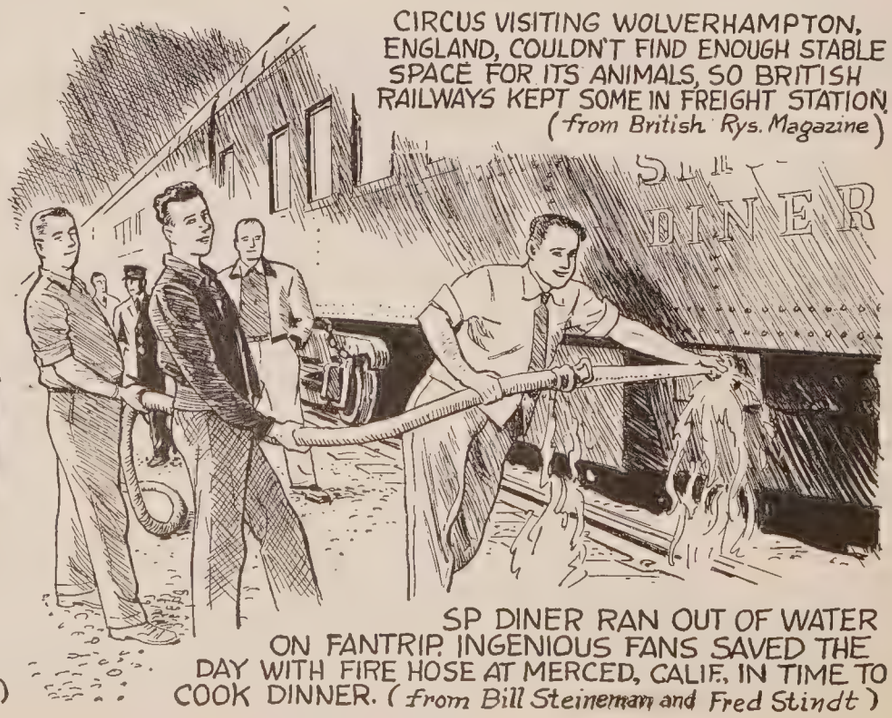

BUSINESS CAR BUILT BETWEEN 1870 AND '75 MAY BE THE OLDEST CANADIAN PACIFIC CAR IN SERVICE TODAY. (from R. Dyson Thomas)





OLDEST RAILROADER. MANUEL LOPEZ, AGE 117, WHO HELPED TO BUILD SOUTHERN PACIFIC, DIED RECENTLY IN LOS ANGELES. (from J.L. Watson)

CIRCUS VISITING WOLVERHAMPTON, ENGLAND, COULDN'T FIND ENOUGH STABLE SPACE FOR ITS ANIMALS, SO BRITISH RAILWAYS KEPT SOME IN FREIGHT STATION. (from British Rys. Magazine)




SP DINER RAN OUT OF WATER ON FANTRIP. INGENIOUS FANS SAVED THE DAY WITH FIRE HOSE AT MERCED, CALIF. IN TIME TO COOK DINNER. (from Bill Steinemann and Fred Stindt)

there was no overhead traffic to be diverted to competing lines. Business which stacked up could simply be moved later.

In November, 1917, a member of the California Public Utility Commission complained bitterly that passenger trains scheduled to arrive in Lakeview at 6:30 P.M. seldom arrived before the following forenoon. The NCO's defense was not entirely convincing: Yes, it was true that passenger trains usually arrived the middle of the following forenoon, but the Commissioner was in error. The train was not scheduled to arrive at 6:30 P.M. but about midnight.

By 1917 Moran Brothers had begun looking for a painless way to get out from under, and so when the Western Pacific, which needed an entrance into Reno, offered $700,000 for the southern sixty-four miles of the main line (Reno to Hackstaff) together with the thirty-nine mile Sierra Valleys line, Moran Brothers snapped up the offer—at a loss of $470,000. The NCO was now reduced to 156.06 miles of track between Wendel and Lakeview, besides a sixteen mile section between Hackstaff and Wendel, known as the NCO Transfer.

Although the NCO was sometimes called the Northern California Outrage or the Narrow, Crooked & Ornery, there was no real rancor in it, and even a measure of affection. The people who used the narrow-gage line appreciated its worth, for the service, while inadequate by present-day standards, was infinitely better and cheaper than that which the freight wagons and stage coaches had provided before the NCO came on the scene. Nonetheless people in the area continued to hope for a standard-gage railroad. The coming of the narrow-gage had not entirely dissipated their sense of isolation. Lakeview people, for instance, never spoke of going "up" to Portland or "down" to San Francisco. They always went "out" to these places.

After 1920 the jig was really up, and Moran Brothers knew it. In 1922 a petition to abandon operations was rejected, but the NCO was permitted to scrap the NCO Transfer and the freight interchange with the WP, while the SP's small joint rate division was reduced another ten per cent. Losses still continued to mount, and by the middle 1920's, abandonment seemed certain.

But at this point central Oregon caught railroad fever. Everyone was talking about expanded service—in the very area which the SP had pioneered. The PUC was attempting to compel the Union Pacific to build across Central Oregon with a branch from Bend to Lakeview, while the Great Northern was seeking an entrance at Klamath Falls. There were rumblings that the GN and the WP might attempt, as they later did, a connection in northern California. Oregon hadn't had so much railroad excitement since the Hill-Harriman battles in the Deschutes Canyon.

And so when the SP finally found it expedient to take over the NCO, Moran Brothers was able to sell out at a surprisingly good price. Both the Moran Brothers and the NCO were lucky. The NCO couldn't have survived much longer anyway, and even the NCO's narrow-gage locomotives found a new home on the SP's slim-gage line. In 1928 standard-gage rail replaced the old NCO rail between Wendel and Lakeview, and a new SP line bridged the ninety-six mile gap between Klamath Falls and Alturas.

And so the old cow-country narrow-gage finally gave up the ghost after nearly a half century of service in an area of sparse resources and population. Many of those who came to welcome the SP standard-gage at the railroad celebrations along the line had been on hand to welcome the NCO in the early years of the century. But there was only good will toward the old-narrow-gage and her owners, the Morans. Theirs was a job well done. In order to run a narrow-gage railroad beyond the first quarter of the Twentieth Century and then get out with even a reasonably whole skin, you had to be both smart and lucky. The Morans were. ●

Advertisement

# Do We Have To Die?

Forty-three years ago in forbidden Tibet, behind the highest mountains in the world, a young journalist named Edwin J. Dingle found the answer to this question. A great mystic opened his eyes. A great change come over him. He realized the strange power that knowledge gives.

That Power, he says, can transform the life of anyone. Questions, whatever they are, can be answered. The problems of health, death, poverty and wrong can be solved.

In his own case, he was brought back to splendid health. He acquired wealth, too, as well as world-wide professional recognition. Forty-three years ago, he was sick as a man could be and live. Once his coffin was bought. Years of almost continuous tropical fevers, broken bones, near blindness, privation and danger had made a human wreck of him, physically and mentally.

He was about to be sent back home to die, when a strange message came —"They are waiting for you in Tibet." He wants to tell the whole world what he learned there, under the guidance of the greatest mystic he ever encountered during his lifetime of travel throughout the world. He wants everyone to experience the greater health and the Power, which there came to him.

Within ten years, he was able to retire to this country with a fortune. He had been honored by fellowships in the world's leading geographical societies, for his work as a geographer. And today, 43 years later, he is still so athletic, capable of so much work, so young in appearance, it is hard to believe he has lived so long.

As a first step in their progress toward the Power that Knowledge gives, Mr. Dingle wants to send to readers of this paper a 9,000-word treatise. He says the time is here for it to be released to the Western World, and offers to send it, free of cost or obligation to sincere readers of this notice. In addition he will give to each of them a 64-page book showing the astonishing events the world may soon expect, according to great prophecies.

For your free copy of both works, simply send a postcard or letter to The Institute of Mentalphysics, 213 South Hobart Blvd., Dept. R216, Los Angeles 4, Calif.

"I'm sorry. Carney wanted a diesel schedule and I had to work overtime."

# BEANERY QUEEN

*She Didn't Like the Way Matt Played up to the Trainmaster in Hopes of Getting a Better Job*

by JACK McLARN

CHIEF CLERK, MOTIVE POWER, SOUTHERN RAILWAY

MATT HALE'S feet made hollow sounds on the dusty sidewalk that morning as he strode across the Hickorydale yard for breakfast. The young engine-house clerk was fit to be tied. His boss, Big Tim O'Connell, had recently dug up an old rule which made it impossible for Matt to complete his qualifying trips as a fireman.

Twenty more pounds of weight would have done the trick. Twenty pounds! That was what he needed to break away from a pencil-pushing job and ride the cab of an 1800-class switcher. But nobody could bail the black diamonds into a firebox on the SG&A unless he had plenty of beef.

There was, of course, an alternative. You could play up to a brass collar and maybe, as a result, line up a better berth. That technique had been white-whiskered with age many centuries before the first railroad was born. Nevertheless, Matt toyed with it. In fact, he'd been putting in hours of extra work as a personal favor to the debonair trainmaster, Bert Carney, doing jobs that Carney himself should have done.

As he headed for the Selatchie Inn, a railroad cafe that faced the roundhouse just beyond the right-of-way fence, Matt was uneasy. How could he find the words to tell Sally Norton, the chestnut-haired beanery queen, why he'd failed to keep a date with her the night before?

He wasn't too sure about Sally. No one was. All of the single crewmen on the Selatchie Division were making a play for her, and she kept them all guessing. Matt felt like a heel for having stood her up.

It was late August, the season for cloudbursts and flash floods. The engine-house clerk looked down at the yellow Selatchie River, about ten feet below rail level. It seemed peaceful enough, hemmed in by the nearby hills, but Matt couldn't be certain, for early morning fog shut off a clear view of the swirling water.

As he passed the roundhouse, the roar of smoke blowers muffled the purr of four shiny new diesel-electrics just in from the east. Matt glared resentfully. He knew that the acrid black clouds erupting from the roundhouse jacket represented the only two steam engines left on the division. If it hadn't been for his being underweight, he'd be firing one of them right now.

He entered the Inn, climbed onto a well-worn stool behind the coffee urn, and watched the beautiful Sally bustle about from one customer to another, dishing out food and wisecracks.

Five feet four she was, a trim figure that curved neatly at just the right places. Her violet-blue eyes were brimming with laughter, her lips were full and saucy.

Matt awaited his turn. It would be mighty nice, he reflected, to be Sally's only customer for the rest of his life, but he thought ruefully of the hoggers, fireboys, and brakemen who entertained the same idea and were pulling down more pay than a clerk received.

He was staring absent-mindedly at the mustard jar when Sally spotted him and came over.

"Hi!" she greeted, but her eyes were frosty and the smile died on her lips. "Where were you last night?"

"Oh, I'm sorry. Carney wanted a diesel schedule set up and I had to work overtime."

"Had to?" The tone was caustic.

"I said I was sorry. I couldn't even get to a phone. But I'll make up for it tonight. How about you and me going to a movie show?"

It wasn't one of Matt's duties to figure out how to send the fleet of sleek black-and-gold locomotives over a three-thousand-mile schedule and get them back to Somerset for maintenance when it was due, but Matt had done that job on his own time. Done it to please the trainmaster. Bert Carney was one of the chosen people; he spoke the language of the high brass. A word from him could be a great help. These thoughts were running through Matt's mind.

Instead of answering his question, Sally asked: "Do you want the usual?"

Matt nodded. "Yeah, honey, but what about a date tonight?"

"Skip it!"

She flounced away, slammed a skillet on her hot-plate, and came back bristling.

"When I went to school, Matthew Hale," she said, "we used to call boys like you apple-polishers."

Matt winced. A moment later the T.M. swung his powerful, well-groomed body onto the next stool and boomed, "Hello, Hale!"

The clerk forced a grin. "Hiya, Mr. Carney!"

"Looking for you," the newcomer went on. "That diesel stretch thing. Fair job. Guess it'll do. Thanks again."

Sally laid a tray full of breakfast on the counter in front of Matt, barely glanced at him, and flashed a smile on Carney.

"Hi, bigshot! How do you want your eggs this time?"

The trainmaster beamed. "Cheese omelet. But what I really want is a date. You and me—Spring City—pick you up tonight at six-thirty?"

"Well," she said, "I sorta have a date with Matt here."

"Oh, he won't mind. Matt's got another date for tonight—with a seniority roster."

"Wait a minute!" the clerk cut in sourly. "A seniority roster is a big office job. Besides, I—"

Carney shrugged. "Okay, Hale. If that's how you feel about it, I can always get the job done at Somerset. But I thought you'd like to show the world what a real personnel man is."

Matt gulped. He realized that a seniority roster, prepared expertly, could win favorable comment from the higher-ups. And he needed recognition to get somewhere on the SG&A.

While he was hesitating, Sally's voice cut in: "Okay, Bert, I've just remembered that I *don't* have a date. And six-thirty is fine." She turned to Matt. "Your check is sixty-five cents, junior!"

The clerk miserably laid sixty-five cents on the counter, and added a dime tip. Then he followed the trainmaster out of the beanery. Vainly he sought consolation in the thought that he was working toward a position where he could justifiably ask the waitress for her hand in marriage.

BACK in the engine-house office, Matt slumped down in his rickety chair and reached for the register sheets. A mass of routine faced him. There would be time tickets to check, work reports to match and file, crew men to be routed out of bed, telephone calls to answer, and a dozen other tasks. As usual, the radio loudspeaker above his scarred desk was crackling with talk from road men within a twenty-five-mile radius of him. Matt rolled up his sleeves and went to work.

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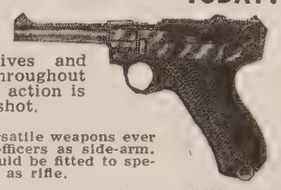

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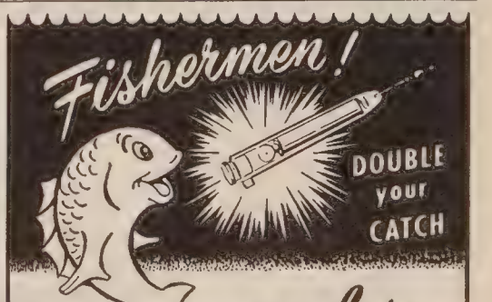


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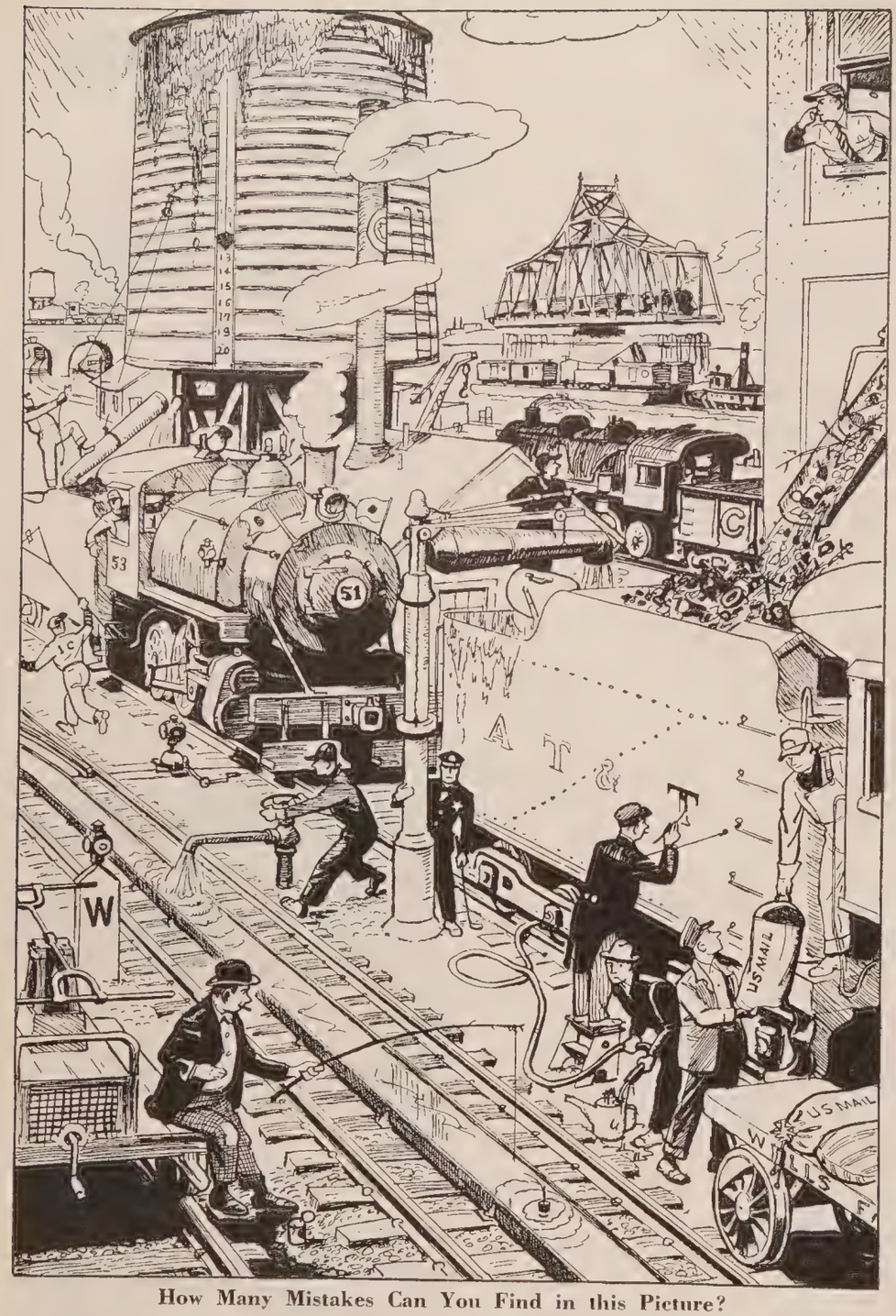


**How Many Mistakes Can You Find in this Picture?**

At eleven a.m. Tim O'Connell, the general foreman at Hickorydale engine-house, lumbered into the office and asked, "How's things?"

"Reg'lar as clockwork," said the clerk. "Four-unit job left at nine forty-seven. Another four-unit due in at two-thirty. The 1801's fired up for the three o'clock switcher. The 1800's due for hydrostatic tomorrow." He riffled through the log sheets. "Jughead Torrence's got a new baby, a girl this time."

Big Tim chuckled softly. "What's all this I hear about you and Sally? They say she's mad enough to—"

Matt's ears tingled. "Hell, I don't know." A phone call to be answered took him temporarily off the hook.

The big-bodied foreman hoisted a leg onto a corner of the desk. "Talk sure gets around, such as you puttin' in a lot of free time for Carney. It don't make sense to me, unless—"

"I have my own reasons for what I do," Matt said curtly.

He gazed idly out of the window at the steep incline of the rail-chute track. Already the blackened chute was stencilled with the cryptic cross-and-circle that meant it wouldn't be needed in the modern diesel age. Maybe before long Matt Hale might not be needed, either. The thought was disquieting. Likely he was making a smart move, getting in solid with Carney, much as it burned him up to do so. And as for Sally—pretty soon he'd get her to see it his way, or at least he hoped so.

"I just got a flash," Big Tim said shrewdly. "There's a new job comin' up. Student trainmaster."

Matt whirled around. What a break! He had the experience for such a job and he knew the division. All he needed was a word from Carney. Here's where the apple-polishing pays off, he told himself.

"I've got a call to make," he said aloud. "Would you mind watching the office for a coupla minutes, Mr. O'Connell?"

The foreman agreed, and Matt darted outside. The sun was hot on his face as he dog-trotted across the yard, but dark clouds were piling up to the north.

At the telegraph office the day operator hailed him. "Telescratch for Mr. Carney. Take it along, will you?"

Matt snatched the clip from him and scurried up the stairs. He glanced at the massage. It had come from Somerset and was signed "Walt Payne, Supt." Matt read the words:

DIESEL STUDY EXCELLENT. HAVE SENT YOUR NAME TO GMQ.

For a moment the engine-house clerk stood uncertainly in the hall. Then he shoved open Carney's door. The trainmaster looked up from a crossword puzzle.

"Oh, hello, Hale!" he greeted. "Got that roster done already?"

Matt dropped the yellow sheet on the desk and steeled his voice. "Just heard from sandhouse gossip, there's a new job coming up that I could handle. Can I count on your recommendation?"

"Where did you get that news?" Carney asked, but even as he spoke the trainmaster was aware that nobody told where sandhouse talk came from.

"I think I've earned a crack at that student job," Matt went on evenly. "I'd like to try."

The T.M. studied for a moment. Then he said: "There was a time

when any half-baked brakeman or hogger or even a clerk could swallow a book of rules and get himself a straw-boss job. Why? Because they knew how things were done—by actually doing them. Not any more, though." He lit a cigarette. "The new crowd doesn't have to do things. They just see that they're done. Me, for instance. I never swung a pick. I don't know how to run an engine."

Matt thought he detected a glint of malice in Carney's eyes, but he did not interrupt.

"I'm way ahead of you, Hale," the trainmaster continued. "If you're thinking of spilling to the Old Man about this diesel schedule"—he tapped the telegram significantly—"forget it! I've already told Payne that you helped me. But it's still got my name to it. And as for the student job—well, it's going to somebody else. A friend of mine."

Carney got up and walked around the desk. He put a hand on Matt's shoulder. "Can't all run the show," he added suavely. "But I'll keep you in mind when something else comes up."

Matt stalked out. He scarcely noticed that the sun had gone and the clouds along the north horizon were growing thicker and darker.

IN HIS OWN office again, after Big Tim had left, Matt ignored the clattering telephones, the piled-up work reports, and the accumulated register sheets. Bitterly he recalled the hours of overtime, the hours of study, the hours of effort—all wasted!

There it was, under a scratched-up glass on his desk, the assignment bulletin spelling out his duties. Beyond those duties he didn't have to go. Nothing more was expected of him.

The yard intercom speaker above the roundhouse cleared its throat. "Repair track! Repair track!" a yardmaster announced. "Car of stock off 253 with the brakes cut out. Want it for 51. Car pokes, get the lead out of your pants!"

Matt picked up the phone. There was a job to do. And down deep he knew he'd do that job, just as he always did. So busy he was that he didn't even think of luncheon.

At 1:30 his office door opened and Sally came in, bearing a tray. Her face was flushed a little. She placed the tray on his desk, covering up a litter of reports.

"I couldn't let you go hungry," she said, "even though you're mad at me."

Matt frowned. He was still sore. "Thanks for the lunch," he said coldly, "and I'm *not* mad. Why should I be?"

The beanery queen eyed him with reproach. "I hope you choke—apple-polisher!"

She pranced out of his office, slamming the door. Matt watched her cross the tracks, stepping like a true railroader *over* the rails, never *on* them.

When she was out of sight he sighed and uncovered the tray. There lay a thick, juicy, hot sandwich of corned-beef on his favorite bread, whole wheat; a cardboard dish filled with whipped sweet potato custard, and a container of steaming coffee, light and without sugar, just as he liked it.

The clerk pitched in. But before he could finish eating, the train loudspeaker crackled into life.

"Emergency! *Emergency!*"

Matt swallowed the last drop of Java and set down the container.

"Engine 4201 calling Hickorydale," the voice went on. "Come in, somebody!"

Matt recognized the voice, Jim Gunther's. Jim was the engineer on the manifest run. Automatically he reached for the mike. Then he shrugged. Why listen to a hoghead's gripes? It wasn't *his* job. But the mike was already in his hand, and Hickorydale engine-house began talking to Extra 4901.

"Matt Hale, Jim. Come in!"

"Matt," Jim Gunther's words tumbled out wildly, "we're at Camp Austin. Hell of a cloudburst in the hills. Flash flood's headin' down-river. Get everybody on high ground!"

Camp Austin was ten miles upstream. Matt knew that once before the Selatchie had gone flood-crazy and all but swept Hickorydale clean. He knew, too, that nothing could stop a mighty wall of water surging through a valley.


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Snapping the emergency switch on the yard intercom system, he threw all the speakers into one circuit and spoke.

"Listen, everybody! Listen!"

On full volume the speakers picked up his voice, amplified it, and flung his words against the towering hills. Things in Hickorydale came to a breathless stop.

"Flood's heading down-river!" he warned, slowly and distinctly, and again the booming sounds echoed through the valley. "Ten minutes—maybe not that much! Get to high ground!"

For a moment, men and women were stunned. Then the terminal exploded into frantic activity. Like ants from a disturbed ant-hill they poured out of the depot, the roundhouse, the shops, the yard office, the bunk houses, and the Selatchie Inn. It was the biggest mass movement Hickorydale had seen since the 4802 blew up with a dry crown-sheet and scattered herself far and wide.

Matt saw Big Tim O'Connell slide out of the 1901's cab, like a kid dropping from an apple tree, and outdistance even the fleet-footed Sally Norton in a race to hillside safety.

The clerk repeated his warning. Then he flung the mike aside and ran, leaving behind him a litter of papers on the desk, an empty coffee container, and two spoonfuls of whipped sweet potato custard.

A DAPPER FIGURE blocked his way. Trainmaster Carney, gazing intently at the four new diesel units that stood in isolation on the ready track, barked at him:

"Hale, can you run an engine?"

"Sure I can," replied Matt. "Used to fire an 1800."

"Good!" Carney nodded. "Get that 1801! We'll latch onto those four units and take them down the south main. We can outrun the flood to Parker siding—the river turns away there. If those babies get wet it'll mean a complete overhaul. We'll keep 'em dry. Let's go!"

He started toward the 1801. Maybe Carney wasn't such a bad sort after all, Matt decided; he was just looking out for number one. The clerk trotted after the trainmaster. This time Carney would *have* to give him a boost. This time—

Then he heard the lowing of cattle. A loaded stock car stood on the repair track, right where it would take the full force of tons of water.

"Mr. Carney!" he shouted. "Those cattle! I'm heading into the rip track. We gotta get that car out."

Carney yelled back: "Don't be crazy! Let the claims department worry about cows. We're saving diesels."

Matt thought quickly. The diesels were Carney's responsibility. Carney was brass; he himself was hired help. It might mean the difference between clerking for the rest of his life and a better job.

But the mental picture of Sally bringing in the tray of food when he was hungry changed his mind. He realized that he couldn't follow Carney and still live with himself, not to mention Sally.

"Hale," demanded the T.M., "didn't you hear me? It's an order."

"We're not letting those cattle drown," said Matt. "I'm taking that car out with the 1801. Don't try to stop me!"

Carney's face went livid, but he tagged along with Matt. Together they ran for the 1801. Matt climbed into the cab, slammed the eight-wheeler into reverse, and jerked the throttle open. Carney grabbed a ride as the footboard shot past him. In a minute they reached the car and uncoupled it.

"All right, get going!" Carney bellowed. "Good Lord!" He pointed wildly.

Two miles up the valley and running down at express-train speed was a tossing, foaming, yellow wall of water! Trees, rocks, and even houses were being swept before it. Matt sat glued to the seatbox.

Carney screamed: "Coal-chute track, Hale! I'll help you in."

He ran toward the switch. Matt threw the reverse lever over and widened on the throttle. The 1801 shuddered, her wheels spinning. Sparks shot high in the air.

Remembering the sanders, Matt slapped the brass valve handle. Grit poured down and the tires caught. With a roar the 1801 found her footing and lunged forward, dragging the car behind. The cattle set up a bawling protest.

It was a race now, a race between the trainmaster and the blasting 1801 and the towering rush of water.

Carney won by inches. He wrestled the switch-stand over. The rails bent under the very footboard of the switcher and the engine slowed as she nosed up the abrupt incline of the coal chute.

When the rear footboard slid by, Carney made a frantic grab. For one agonizing instant he lost his footing, then he climbed aboard as the 1801 pointed her nose toward the sky.

Higher and higher the engine struggled with her load, while the water churned below them. The coal chute staggered with the incalculable shock of flood. Matt tugged at the wide-open throttle. The 1801 was giving all she had, fighting against the incline but losing with every thrust of her pistons.

A strange hissing sound arose as the wave overtook them. The engine coughed and sputtered. But with a last powerful lunge she topped the incline and leveled off on the trestle.

Shakily, Matt shoved the air into full emergency. The 1801 ground to a stop. They were safe! The load of bawling cattle rested high above the tawny flood that was rapidly filling the narrow valley.

A rush of emotion swept over Matt. Sally was safe, thank God! He'd seen her run toward the hill in plenty of time. He studied the scene.

The ancient brick engine-house had melted away. Boxcars floated over the turntable pit. Four new diesel units were submerged to the roof plates. Water covered the entire first floor of the Selatchie Inn. On a floating chicken-coop a bedraggled rooster crowed defiantly.

Carney inched his way into the cab, eyeing Matt. The clerk cocked his feet on the boilerhead in true hogger fashion.

"Enjoy yourself, Hale!" said Carney. "But figure on some new way of making a living when we get down from this—this—"

In that illuminating moment it dawned upon Matt that Trainmaster Carney was just another guy afraid of his job.

"I was thinking," murmured the clerk, "you and Sally won't make that trip to Spring City tonight. And"—he nodded toward the firebox door—"the rules say that when a fireman's on an engine he must obey the hogger's orders. I'm the hogger. I want some steam in this tea-kettle to back us down. There's the scoop!"

For a moment the trainmaster, no longer debonair, sat where he was. He glared at Matt and then dropped his eyes to view the flood. It was beginning to ebb. Slowly he climbed down from the seatbox, shed his sodden jacket, and picked up the long-handled scoop, and grinned.

IT WAS MORNING before Matt could edge the 1801 and her solitary car down the shaky trestle. A bright August sun shone on sand, muck, rocks, and trees. Hickorydale was a ghastly mess. The four diesel units were waterlogged candidates for the backshop. Already the scrape of shovels and the clatter of bulldozers were ringing through the valley. Emergency crews had flung themselves into the terrific task of cleaning out enough tracks to put the paralyzed division back into business.

Matt butted his cattle car to what was left of the stock chute. Then he put the brakes down on the 1801 and slid to the ground. Trainmaster Carney walked toward the sagging depot in search of a telephone.

Everything was steamy and sticky and mud-caked. Matt felt uncomfortable. But he wanted to find Sally and so he sloshed over to the Selatchie Inn and peered inside. Tons of gray gooey silt buried the floor. As he entered the great dining room—no longer recognizable as such—he saw a volunteer crew shoveling out the mud, and a girl was bossing them.

She wore a fireman's dungaree's and a pair of bridgemaker's boots that were many sizes too large for her. The girl's figure didn't look very feminine in that rig but her face did. You couldn't have mistaken the violet-blue eyes nor the saucy lips nor the wisps of chestnut-colored hair that stuck out profusely from under a bandana.

"Sally!" Matt called.

The beanery queen whirled around, while her bridgemaker's boots stayed in the same place, so that she lost her balance and fell into Matt's arms.

"Listen, you," he said illogically. "In about five minutes I'll be out of a job. Will you marry me?"

"What an inducement!" Sally laughed, and the dimples danced in her cheeks. "But I am crazy, too, and the answer is yes. No, don't!" She tossed her pretty head to one side. "Don't kiss me here! My face is dirty."

While she was struggling in his arms, Matt felt a heavy hand on his shoulder and he turned to face Trainmaster Carney.

"You're fired," said the T.M., "for insubordination, damaging company property, and unauthorized use of an engine." But he was grinning as he spoke. "Seriously, though," he added, "you did a great job, Hale. The SG&A won't forget it. You're coming into my office, you know. That is, if you still want that new job of student trainmaster."

"If I still want it?" Matt blurted out his thanks.

"I never did like apple-polishers either," the T.M. said with a grin.

At length Sally cut in. "I reckon you boys are hungry," and she steered them over to a clean table. "That new job can wait till after breakfast." ●

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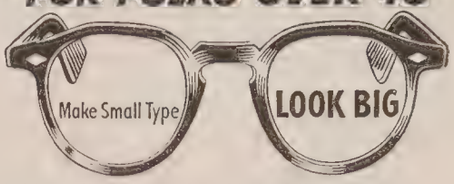


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## RAILFAN CLUBS

THE following list of railfan clubs has been compiled from reports received from readers in answer to our request for information in the March issue. It is almost certainly incomplete.

In most clubs the only membership requirement is an interest in steam, diesel, or electric railroads, but a few have restrictions as to age, sex, color, character, and so on, so before showing up at a meeting you'd better check with the secretary to be sure you're not putting yourself out on a limb. Though dues sometimes range as high as $10 a year, the average is more nearly $2.50, and many clubs offer reduced rates to associate members who attend meetings and receive publications but cannot vote.

Monthly meetings, at which movies, slides, and lectures are the usual fare, and fantrips and tours of railroad installations are the basis of almost all club activities. Some also support operating museums, collections of railroadiana, or libraries, while others are most interested in railroad history, photography, or model building. Almost all clubs claim that association with those of similar interests enhances their enjoyment of their hobby, so perhaps the unaffiliated railfan may find it worth his while to join the club in his community.

The list below includes the name and address of each organization and, unless otherwise indicated, its secretary, along with the name of its publications, if any, and other details of interest. No exclusively employe or model railroad organizations have been included.

AMERPO—American Section, T.P.O. & Seapost Society. Irregular meetings. Herman Jacot, Weaver St., Greenwich 17, Conn. "Section Supplement" (bimonthly).

BAY AREA Electric Railroad Association. Addison H. Laflin, Jr., 2119 Marin Ave., Berkeley 7, Calif. "Bay Area Electric Railroad Review" (monthly). Operates BAERR, operating museum.

BRANFORD Electric Railway Association. E. J. Quinby, Pres., Short Beach, Conn. Operates BER, operating museum.

CALIFORNIA-NEVADA Railroad Historical Society. Arthur Lloyd, Jr., 3533 Pasadena Dr., San Mateo, Calif.

CANADIAN Railroad Historical Association, Inc. O. S. A. Lavallee, Editor, 6959 De l'Epee Ave., Montreal 15, Que. "News Reports" (11 times a year), "Bulletin" (quarterly).

CENTRAL COAST Railway Club. Russ Cody, P. O. Box 783, San Jose, Calif. "The Ferroequinologist" (monthly), 24 Pleasant St., Los Gatos, Calif.

CENTRAL Electric Railfans' Association. Box 503, Chicago 90, Ill.

CLEVELAND Railroad Club. J. William Vigrass, 15029 Detroit Ave., Cleveland 7, Ohio.

DELAWARE VALLEY Ry. Asso., Robt. Foley, Jr., 631 Shadeland Ave., Drexel Hill, Pa. "The K-6" (monthly), 5514 Malcolm St., Phila., Pa.

ELECTRIC Railroaders' Association. Lackawanna Terminal, Hoboken, N. J.

THE HESPELER SOCIETY of Lower Ontario. Irregular meetings. E. A. Ellis, 227 Westminster Ave., Syracuse, N. Y. Newsletters (irregularly). Ontario electric lines only.

ILLINI Railroad Club. A. R. Wildhagen, Pres., 1215 W. Charles St., Champaign, Ill. "The Callboard" (inactive).

METROPOLITAN PHILADELPHIA Railway Association. Box 7285, Philadelphia 1, Pa.

MICHIGAN Railroad Club. Richard Glaze, 6061 Chicago Rd., Warren, Mich. "Michigan Railfan" (monthly).

MINNESOTA Railfans' Association, Inc. Fred W. Cress, 4910 Twelfth Ave. South, Minneapolis 17, Minn. "Cinders & Sparks," 4191 Summit Lane, White Bear Lake 10, Minnesota.

NATIONAL Railway Historical Society. James S. Myers, 5005 N. Sydenham St., Philadelphia 41, Pa. "Bulletin" (quarterly).
Baltimore. Fred Hering, 110 Oak Drive, Baltimore 28, Md.
Boston. William Gleaves, 64 Beaconsfield Rd., Brookline, Mass.
Buffalo. Lester F. Baker, 60 Clarence Center Road, Clarence Center, N. Y.
Connecticut Valley. E. G. Kelley, 20 Lake Place, New Haven 11, Conn.
Hartford. F. Raymond Gale, 48 Boswell Rd., West Hartford 7, Conn.
Iowa. Ed Wilkommen, 2539 N. 72nd St., Wauwatosa 13, Wisc.
Kansas City. E. M. Hitzeman, 2615 Washington Ave., Kansas City 2, Kan.
Lancaster. Walter Knapp, Jr., 49 Kreider Ave., R. D. 3, Lancaster, Pa.
Lehigh Valley. Gerhard Salomon, 606 Hamilton St., Allentown, Pa. "Lehigh Lines" (quarterly).
Louisville. David J. Williams III, Box 154, Richmond, Ky. "Tie Plate" (monthly). Sponsors Kentucky Railway Museum.
Midwest. Norman Klabuhn, 1300 13th St. N. W., Canton 3, Ohio.
Milwaukee. R. D. Ross, 2369 South 57 St., West Allis 14, Wisc. "Sparks & Cinders."
New York. Vincent Seyfried, 193-10 100th Ave., Hollis, N. Y.
North Jersey. George Eggers, 30-69 Hobart St., Woodside 77, N. Y.
Philadelphia. Milton E. Pricskett, 346 Driscoll Ave., Woodbury, N. J
Rochester. Ward C. Shafer, 26 Modelane, Rochester, N. Y.
Syracuse. Norman Kistner, 334 Garfield Ave., Syracuse 5, N. Y.
Topeka. Ray Hilner, 2400 Beverly Court, Topeka, Kan. "Sparks" (monthly).
Washington. Frank T. Hochas, 301 Elm Ave., Takoma Park 12, Md.
Western Connecticut. 65 Advocate Place, Stamford, Conn.
West Jersey. W. B. Stevenson, 151 Wayne Ave., Haddonfield, N. J.
Pacific Northwest. C. J. Keenan, 6354 N. E. Cleveland Ave., Portland 11, Ore.
Wichita. N. G. Breth, 233 S. McComas St., Wichita, Kan.

NEW ENGLAND Electric Railway Historical Society. 21 Carver Rd., Newton Highlands 61, Mass. Operates Seashore Electric Railway, Kennebunkport, Me.

NEW ENGLAND Railfans' Association. David R. Sweetland, 198 Waterman St., Providence, R. I. "Right of Way" (monthly).

NORTHERN CALIFORNIA Railroad Club. Al Thomas, 502 Dale View, Belmont, Calif.

ONTARIO Electric Railway Historical Association operating the Halton County Radial Railway, Rockwood, Ont. R. J. Sandusky, RR 6, Brampton, Ontario. "Annual Report" (annually).

PACIFIC GREAT EASTERN Boosters. Ernie Plant, Box 40, Horseshoe Bay, B. C.

PACIFIC Railway Society. Box 5279, Metropolitan Station, Los Angeles 55, Calif.

PARKSIDE Railroad Club. William S. Gettz, 339 Byron St., Camden, N. J. Semi-monthly meetings.

PENN-LIGONIER Railroad Club. Paul E. Park, 515 Depot St., Latrobe, Pa. Weekly meetings. Collection of Railroadiana. HO modeling.

PITTSBURG Electric Railway Club. 102 Woodside Road, Pittsburgh 21, Pa.

RAILROAD Club of Reading. William Z. Rhoads, Jr., Pres., 231 West Windsor St., Reading, Pa. Weekly meetings.

RAILROAD Enthusiasts, Inc.
New York. Arthur T. Knowles, P. O. Box 25, New York, N. Y.
New England. Robert J. Lawthers, 65 Kilburn Rd., Belmont, Mass.

RAILROADERS Anonymous. Gary P. Cirin, 19 Helena Ave., Yonkers, N. Y. Weekly. Teenagers.

RAILROAD Fan Club of Oakwood, Wis. Operates Oak Creek Central Railway.

RAILROADIANS of America. Bernard Gaffney, 8 MacArthur Ave., Cranford, N. J.

RAILWAY and Locomotive Historical Society. Harold D. Forsyth, P. O. Box 42, West Lynn, Mass. "Bulletin."
New York. Eward Colgan, P. O. Box 434, Grand Central Annex, New York 17, N. Y.
Chicago. David Owen Davies, 1214 North LaSalle St., Chicago 10, Ill.
Pacific Coast. Edward T. Planer, 469 Crescent St., Oakland, Calif.
Northern Indiana. J. Harold Kiracof, Box 19, Osceola, Indiana.
Southern California. Donald Duke, 2304 Melville Drive, San Marino, Calif.

RAILWAY Club of Southern California. 219 No. Avenue 66, Los Angeles 42, Calif.

ROCKY MOUNTAIN Railroad Club. M. C. Poor, Denver, Colo.
Eastern Division. Michael Koch, 1115 Bryant Ave., New York 59, N. Y.

ST. LOUIS Railway Enthusiasts. Stella Michel, 744 East Thrush Ave., St. Louis 15, Mo. Maintains library.


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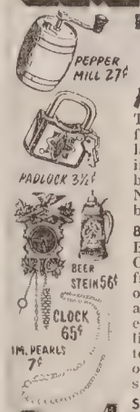


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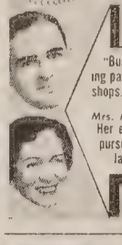

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**At the head end of a 75-car drag freight, a Union Pacific 2-8-8-0, No. 3525, worked west at 15 miles an hour on a 2 percent grade in the Blue Mountains near Kamela, Ore., during the winter of 1939. Another 2-8-8-0, No. 3613, pushed at the rear.**

WEST JERSEY Railroad Club (Delaware, Susquehanna & Western O-gage Railroad). Stanley W. Praster, 122 Crescent Ave., Woodbury, N. J. Maintains library.

UPPER CANADA Railway Society. J. R. Oakley, Box 122, Terminal "A", Toronto, Ont. "Newsletter" (monthly), "Bulletins" (irregularly).

WILLAMETTE VALLEY Electric Railway Association. Paul Class, 3424 N.E. 79th St., Portland, Ore. Monthly bulletin. Operates trolley museum.

## RAILFAN PUBLICATIONS

EXCHANGE BULLETIN, 1385 W. 13th St., San Pedro, Calif. Photo exchange, RR articles.
NEWS HERALD, Box 726, Los Altos, Calif.
RAIL PHOTO SERVICE NEWS, free lists, bulletins, 309 Sherman Bldg., 93 Massachusetts Ave., Boston 15, Mass.
LOCOMOTIVE NEWSLETTER, 472 Belonda St., Pittsburgh 11, monthly, $.50 a year.
SHORT LINE RAILROADERS, 23 Parker Ave., Cranford, N. J.
WESTERN RAILROADERS, Box 668, San Mateo, Calif. ■

## STEAM POWER

GOOD news for steam fans comes from Fred Ciocciola, 1630 Jackson St., Philadelphia, Pa. "Steam locomotives," he writes, "long cold or retired to branch lines, are back on the Pennsylvania main line handling the road's booming freight business. About thirty steam locomotives have been reconditioned at the Altoona shops for a return engagement. Eighteen are back on the job, and the others are ready to work up a head of steam at a moment's notice."

Less encouraging is the word that steam has been banished from the following roads either by dieselization or abandonment: Cadiz; Cowlitz, Chehalis & Cascade; Rahway Valley; Rutland; Valdosta Southern; Virginian; Montana Western; Long-Bell Lumber Co. (Tennant, Calif.); and Sierra.

The LIRR will go all-diesel this fall, scrapping its last 12 steamers.

This month's steam list was compiled from reports from Roger Breslow, Providence, R. I.; Richard Gibbons, Natick, Mass.; John T. Picken, Amityville, N. Y.; Bob Larsen, Eau Claire, Wisc.; William K. Viekman, New York, N. Y.; John Bogvilo, Aurora, Ill.; Eugene H. Blabey, Albany, N. Y.; Bill Eno, Sheffield, Ia.; John P. Killoran, Lewisburg, W. Va.; D. M. Rice, West Springfield, Mass.; Thomas Francis, Ypsilanti, Mich.; Rodger Darling, Maywood, Ill.; Jules Krzenski, Warwick, Va.; Pete I. Roehm, Pittsburgh, Pa.; Noel S. Weaver, Jr., Waterbury, Conn.; James Stephens, Wayne, Pa.; Kit Coddington, Blairstown, N. J.; Roger Corbin, Chehalis, Wash.; Ronald Welch, Gallup, N. M.; Gerald M. Needle, San Francisco, Calif., and Gene Miller, Granite City, Ill. Previous lists have appeared in *Railroad* for December, 1954, and January through August, 1955. We cannot of course guarantee their accuracy.

Alabama Central—Jasper, Ala.—2-8-0's, 4-6-0.

Atchison, Topeka & Santa Fe—Albuquerque, Belen, N. M.—1600, 2900, 3200, 3700, 3800 3900, 4000, 5000 class stored.

Boston & Maine—Boston, Mass.—0-6-0's, 0-8-0's, 4-6-2's, 2-6-0's; Salem, Mass.—2-6-0's, 4-6-2's; Clinton, Mass.—2-6-0's; Lowell, Mass.—4-6-2's.

Carter Lumber Co.—Camden, Tex.—2-8-2's, 2-6-0's, 2-6-2.

Central Vermont—New London, Conn.—2-8-0's, 0-8-0's; Palmer, Mass.—2-8-0's; Brattleboro, Vt.—2-8-0's, 0-8-0, 2-10-4's; White River Jct., Vt.—2-8-0's, 0-8-0, 4-8-2's, 2-10-4, dead.

Chesapeake & Ohio—Rainelle, W. Va.—2-6-6-2's, stored; Clifton Forge, Va.—2-8-0's, 2-8-2's, 2-8-4's, 0-8-0's, 2-6-6-2's, 4-8-4's, 2-6-6-6's, 4-6-4, stored; Hinton, W. Va.—2-6-6-2's, 2-6-6-6's, stored; Handley, W. Va., Russell, Ky.—2-8-4's, 2-6-6-6's on extras; Newport News, Va., yard track—dead engines.

Chicago, Burlington & Quincy—Aurora, Ill.—0-6-0's.

Chicago & North Western—West Chicago, Ill.—4-6-2's, 4-6-0; Mason City, Ia.—2-6-0, 0-6-0 in use, 2-8-2 dead; Chicago, Ill.—0-6-0's, 4-6-2's, on Chicago-Omaha main line.

Chicago, Milwaukee, St. Paul & Pacific—Bensonville, Ill.—4-8-4's, stored; Mason City, Ia.—0-6-0, dead; Marquette, Ia.—dead engines; Miles City, Mont.—0-6-0T.

Chicago, Rock Island & Pacific—Blue Island, Ill.—4-7-4's, 4-6-2's, 0-8-0's, dead.

Chicago, St. Paul, Minneapolis & Omaha—Altoona, Wisc.—0-6-0's, 4-6-0's, 4-6-2's, 2-8-2's; Elroy, Wisc.—4-6-0, 2-8-2; St. Paul, Minn.—0-6-0's, 0-8-0's, 2-8-2's, 4-6-2's; Minneapolis, Minn.—0-6-0's, 0-8-0's, 2-8-2's, 4-6-2's; Spooner, Wisc.—0-6-0's, 4-6-0's, 2-8-2's, 2-8-0; Atasha, Wisc.—2-8-0's.

Consumer Co.—Afton, Wisc.—0-4-0T.

Eadaville—South Carver, Mass.—0-4-0T's, 2-4-4T's, 2-foot gage.

E&G Brooke Iron Co. (Division of Colo. F&I)—Pittsburgh, Pa.—0-4-0 Camelback, No. 4, ex-Reading 1187.

Edgemoor & Manetta—Lando, S. C.—0-4-0T.

Fonda Johnstown & Gloversville—Gloversville, N. Y.—0-6-0.

Georgia—Harrisonville yard—2-8-2's, 4-6-0's, 0-8-0, stored.

Georgia, Ashburn, Sylvester & Camilla—Moultrie, Ga.—2-8-2.

Georgia Northern—Moultrie, Ga.—4-6-2, 2-8-2, stored.

Ideal Sand & Gravel Co.—Mason City, Ia.—0-4-0.

Illinois Central—Kankakee, Ill.—4-8-4's, 4-8-2's, 2-8-2's.

Mobile & Gulf—Fayette, Ala.—2-6-0.

Moscow, Camden & San Augustine—Camden, Tex.—2-8-0, 2-6-0 in use, 4-6-0, Shay, dead.

Mt. Blanca & Western—Narrow-Gage Motel, Alamosa, Colo.—2-8-0's, 4-6-0 (ex-Rio Grande & Rio Grande Southern), also miscellaneous rolling stock, galloping goose.

New York Central—Albany, N. Y.—4-8-2's; Ypsilanti, Mich.—4-8-0's; LaSalle St. Station, Chicago, Ill.—0-8-0, 4-6-4, 4-8-4's; Granite City, Ill.—switchers; Rainelle, W. Va.—2-8-2's, stored.

Pacific Coast Terminals Co.—New Estminster, B. C.—0-6-0's.

Philadelphia Slag Co.—West Conshohocken, Pa.—0-4-0T out of service.

Portland Terminal—Portland, Me.—4-6-4.

Rockton & Rion—Rion, S. C.—steamers.

Southern Pacific—steam on San Joaquin, Los Angeles, and Western divisions.

Western Maryland—Hagerstown, Md.—4-8-4's, stored.

West Palm Beach Terminal—West Palm Beach, Fla.—0-6-0's. ●

## RAILROADIANA

ITEMS sent to this department are printed free, in good faith, but without guarantee. Write very plainly.

No entry must be longer than 28 words—except those dealing with back numbers of this magazine. Specify condition of all magazines and books.

Address *Railroad Magazine*, 205 E. 42nd Street, New York 17, N. Y.

No entry will be acknowledged by mail unless you enclose a self-addressed postal or stamped card.

Use these abbreviations: *cond.*, condition; *ea.*, each; *elec.*, electric; *env.*, envelope; *eqmt.*, equipment; *esp.*, especially; *info.*, information; *n.g.*, narrow-gage; *negs.*, negatives; *p.c.*, postcard; *pref.*, preferably; *tr.*, train; *rr.*, railroad.

The term *tts.*, refers to public timetables, unless preceded by *emp.*, when it means employes' (operating) timetables.

## SWITCH LIST

JIM ADY, Box 991, Las Vegas, Nev., will pay $25 ea. for original emp. tts. before 1911 of Bullfrog & Goldfield, Tonopah & Tidewater, or Las V. & Ton.

RICHARD ANDERSON, 6744 N. Oconto Ave., Chicago 31, Ill., sells size 116 steam and elec. negs., originals and copies.

J. H. ANDERT, 585 Otis St., Chula Vista, Calif., wants *Off. Guides* any month 1887, '88, '89; also any tts. or emp. tts., Coro. RR., Nat. City & Otay.

C. T. ANDREWS, 1502 Lehigh St., Easton, Pa., buys, sells, trades LV loco pix, p.c. size.

ALLEN BAIRD, 259 N. 107th St., Colton, Calif., sells many loco rosters. What do you want?

CHAS. BALLARD, Box 3, Poestenkill, N. Y., sells 35 mm. Kod. slides, elec., steam, A&LV, Claremont, others; list free.

EDGAR BANKS, 207 W. 110th St., Apt. 25, New York City, buys pix or literature on CL&N, C&W, Hock. Val., interurban elec. lines, all Ohio.

J. C. BARNUM, 847 Walker Ave., Oakland, Calif., wants Poor's *DSP&P* and Graves' *Colo. Midland*; state cond.

ALAN BARDAL, 6857 Wiltshire St., Vancouver 14, B. C., Canada, sells, trades size 116-616 pix CNR, CPR, etc. List 5c coin. Wants same size steam negs. CPR, CNR, LV, D&H, GN, WM, D&RGW.

JOHN BARRINGER, 805 Recon. Tech. Sq., Forbes Air Force Base, Topeka, Kan., wants detailed scale drawings or bldr. blueprints of Mason bogie locos built for DSP&P.

TOM BJORKMAN, 101 Twin Falls Rd., Berkeley Heights, N. J., will buy DL&W switch key.

S. BLENNERHASSETT, 65 Finchley Rd., Montreal 29, Canada, sells 35 mm. Kod. slides of CPR, CNR locos, 25c ea. Write for list.

DALE BELL, Box 36, Fort Dodge, Kan., wants to hear from Midland Val. fans.

BOB BENTON (age 17), 396 Orchard Lane, Highland Park, Ill., wants to hear from steam, diesel, or elec. teen-age fans.

W. L. BOGLE, 1944 Maple Ave., Yuma, Ariz., wants loco pix, tr. orders, tts. of EP&SW and SP's Rio Grande Div. up to 1940, any *Off. Guide* 1910-'22.

DAVE BOLDUC, 186 Silver St., Waterville, Me., wants pix or negs. of Maine 2-ft.-gage roads. *(Editor's note: Linwood Moody, Box 144, Union, Me., sells 'em.)*

EDW. BOND, 8904 Rivershore Drive, Niagara Falls, N. Y., wants n.g. C&S and Gilpin Co. pix, tts., plans, etc., also *Railroad Magazine* Dec. '42, Jan. '43, Feb. '54.

DOUG. BRISTOW, 733 E. Brookline, Winston-Salem, N. C., sells rr. mags., sizes 616-620 steam pix N&W, Vgn., Sou., etc. New list for 3c stamp.

JACK BROMLEY, 32 North Drive, Toronto 13, Canada, wants stcar. pix from big cities U. S. and Canada and Toronto trolley pix. List and sample 10c coin.

W. BROSCHART, 36 O'Kane St., Central Islip, N. Y., offers large plate signs from front TARS trolleys $5 ea., NYCTS El plate signs $1 ea. Also sells prints from 76,000 negs.

CONRAD BROWN, 93 Esther St., Franklin Square, N. Y., wants to hear from West rr. club members willing to swap steam pix with East rr. club.

ROBT. BROWN, CB&Q agt., Pleasantville, Ia., setting up school display, needs old tr. orders, emp. tts., other railroadiana; will pay postage.

STAN. BULSIEWICZ, 57 E. Chestnut St., Asheville, N. C., will buy *CERA Bulletin 44, Slow Train to Yesterday*, and *Along the Iron Trail*; state cond.

RAY BYERS, 167 Feronia Way, Rutherford, N. J., sells size 116 pix postpaid: Denver trolleys 7 for 75c, Chicago El trains 8 for $1.

BEN CAHILL, Box 1034, Santa Cruz, Calif., will sell *Railroad Magazine*, 1935-'52, good cond., 35c ea. postpaid.

GEO. CANTARA, Box 203, Woonsocket, R. I., buys all available pix Androscoggin & Kennebec elec.

BILL CHANOVE, 1930 Grove St., San Francisco, Calif., will sell *Railroad Magazine*, 1944-'48, good cond. Make offer.

TED CHERRY, 1287 Walden Ave., Buffalo 11, N. Y., wants pix and negs. of certain NYC, DL&W, Pennsy, C&O locos *(list too long to print here)*.

D. M. CHRISTISEN, Box 122, Columbia, Mo., will sell 54 *Railroad Magazines*, 1936-'53, $10 f.o.b.; 1943 *Car Bldrs. Cyclo.* $8.50; 1926 *R. & E. Maint. Cyclo.* $9.

Miss MARJORIE CLUTE, 74 Sheridan Ave., Albany, N. Y., will buy tail-light like picture in June '55 *Railroad Magazine*, page 52. Also large pic of famous D&H caboose at Oneonta.

C. COOK, 3100 E. Ovid, Des Moines 17, Ia., wants size 116 steam negs. Sou., SE short line, LOP&G, Caro. Sou., Marianna & Bl, buy or trade. Send lists or approvals.

STAN. CREWS, Box 63, Waynesboro, Tenn., sells rr. and interurban tts., diner menus, trolley maps, rr. booklets. Write for details; state wants.

WINFIELD CROWTHER, 580 Humboldt St., Denver 18, Colo., wants info., rosters, pix, emp. tts., etc. on Quanah, Acme & Pacific. Write first.

RICHARD DUFF, 4318 Commonwealth Ave., Toledo 12, O., will swap Long's *Mail by Rail, Handbook of Amer. Rrs.*, both good cond., for old *Off. Guide*, recent emp. tts., or elec. rr. pix


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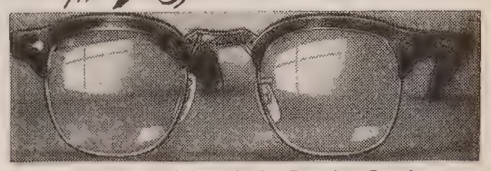

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Capt. ANTIETAM EL CANEY, 4704 Vinetta Ave., La Canada, Calif., selling big rr. library, also incl. early development of telegraph, phone, Western travel, mining, etc. Big list 6c in stamps.

P. ELLIS, 3 Keiller St., Moorabbin, Victoria, Australia, swaps st.-gage and n.g. negs., pix, and rr. literature for 35 mm. rr. color slides, rr. and historical non-fiction books, mags.

BOB EMERICK, 200 S. Terrace, Boonton, N. J., wants negs., pix Rut., L&HR, L&NE; info. on Chatham and Addison branches of Rut.

MARTY FALLON, 2712 Ann St., Philadelphia 34, Pa., sells emp. tts. Wants negs. or pix of 5-Mile Beach Elec. Ry., Fairmount Park trolleys, Rdg. Transit. Swaps trfs.

EDW. FERNAU, 68 Waller Ave., White Plains, N. Y., wants info. on NYW&B, trk. diagrams, right-of-way maps.

HARLEY FOLSOM, Texaco Station, Marshfield, Vt., will trade many *Railroad Magazines*, 1930s, '40s, '50s, unclipped, for astronomy mags. Will sell Montp. & Wells R. tts. 1888, '89, '90.

WM. FOLEY, 269 E. North Ave., Elmhurst, Ill., wants old issues *CERA BULLETIN, Trolley Sparks*; Spearman's *The Nerve of Foley*.

TOM FRANCIS, 601 W. Forest Ave., Ypsilanti, Mich., wants pic NYC diesel 4004; write first.

ROBT. GARASHA, 4102 Argyle St., Chicago 30, Ill., will sell 2 roller car signs from Ga. Power Co. (Atlanta); also one from BCE city car and roof sign with case.

DENNIS GARY, 680 12th St., Campbell, O., will trade p.c. or size 116 pix PRR, NYC, B&O, P&LE, mostly steam.

GEO. GEYER, 312 S. Walnut St., Milford, Del., will send C&O pass for two 3c stamps as long as supply holds out (but he has only a few).

CHAS. GOETHE, 1108 S.E. 7th St., Ft. Lauderdale, Fla., wants original 4x10 trolley and interurban car bldrs' photos, esp. Sou. Car. Co.

JERRY GOODRICH, RD 2, High Bridge, Lewiston, Pa., will buy Aug. '34 *Railroad Magazine*; write first.

C. O. GOTSCHALL, 626 Thorn St., Reading, Pa., wants pix Colo. n.g., locos, trains, eqpmt.; wants n.g. fans and ex-employes as pen pals.

RAY GOUGH, 266 Clinton Ave., Jersey City, N. J., is assembling list of all diesel types; send info.

FRANK GUERNSEY, 615 S.E., 70th Ave., Portland 16, Ore., will buy or trade negs., any size, NP, GN, SP, WP, SP&S. Wants to hear from NP, GN fans. Trades dog-license tags. *(Editor's note: F. G. is the only dog-tag collector we know of, but there may be others.)*

R. P. HAHN, Jr., 675 Northampton St., Hellertown, Pa., sells back issues *Railroad Magazine, Trains, Mass Transp.*, model mags. List for 3c stamp.

J. C. HALLEAD, 1607 Beech St., Valparaiso, Ind., disposing of rr. clippings, engine pix, info., dating back to 1930s. Write for details.

ROBT. HANKLA, 3613 Glendale Ave. S., Charleston, W. Va., will sell all issues *Railroad Magazine*, fair cond., Jan. '31 thru Dec. '48, except Apr. '35; June '37; Jan., July '38; May, Aug., Sept., Oct. '39; June, Oct., Dec. '40; Feb., June, Aug., Oct., Nov. '41; Jan., Apr., May '42; July '43; Feb., May '47; June, July '48. Buyer pays $20 plus frt.

DON HANSEN, 3904 19th St., San Francisco 14, Calif., wants Sierra RR. steam negs., pix, esp. 38, pref. action. Sells SF Muni. pix 9 for $1.

ERLE HANSON, 704 59th St., Oakland 9, Calif., sells pix Oakl. Tsp. Sys. before bus era, some back in 1890, sizes 616, p.c., 5x7, 8x10. List 10c.

JERRY HANSON, 6234 S. Bell St., Tacoma 8, Wash., sells size 116 pix NP, Milw., UP, GN, others, steam incl. Lists and sample 10c.

FRANK HARMER (UP machinist), 4708 N. 38th St., Omaha 11, Neb., wants to hear from oldtimers who worked on UP locos 2000, 2001, 2002, and OWR&N 450, 451, 452.

WALT HARRIS, 45 W. Elm St., Stockton, Calif., sells back issues *Railroad Magazine, Trains, Ry. Progress*, model mags., miscellany. List for 3c stamp.

STEVE HAYWORTH, 131 N. Main St., Asheboro, N. C., wants Class I steam rosters as of Jan. 1, '47, and Jan. 1, '55.

V. K. HURD, Box 250, Green River, Wyo., selling railroadiana collection (tts., emp. tts., books, old issues *Railroad Magazine, Trains*, model mags., etc.). List for 6c stamp.

D. L. HURST, 5729½ Franklin Pl., Hollywood 28, Calif., buys, sells, swaps rr. books, mags., esp. hard-to-get ones.

H. E. JENKINS, 1 6th St., Upland, Pa., wants tts., emp. tts., Wishawa's *Rys. of Gt. Brit. & Ireland*, 1840 ed.

NORMAN JOHNSON, 420-98-14, USS LST 901, Fleet PO, San Francisco, Calif., will buy UP, Santa Fe, Los Angeles Jct. Ry. switch keys, also green, yellow, blue glass for kerosene hand lanterns.

A. J. JORDAN, 211 Winerva Ave., Toronto 8, Canada, wants *Railroad Magazine* July '32; Feb. '33; Sept. thru Nov. '37; Jan., Feb. '40, also old CNR roster (Sept. thru Dec. '37). Offers in trade choice of back issues '42 thru '49.

A. B. JOSEPH, 2512 Tratman Ave., New York 61, N. Y., sells many old issues *Railroad Magazine, Trains*, model mags.; all good cond.; lists of any for 3c stamp.

STAN. KISTLER, 3521 Blanche, Pasadena 10, Calif., sells size 116 steam negs. Apache, CW, McCloud, NWP, SD&AE, Trona, SP, Santa Fe, WP, UP, etc. List for 3c stamp.

C. KOWAL, 1846 W. 20th St., Chicago 8, Ill., will trade good copy 1914 Sears' mail order cat. for *Car Bldrs. Dict.* or *Loco. Cyclo.* before 1925.

ROGER KRUEGER, 1936 Brigden Rd., Pasadena 7, Calif., will sell some back copies *Railroad Magazine*, model mags.

RAY KUCERA, 3008 S. Kolin Ave., Chicago 22, Ill., wants color pix CSL, CTA, CRT, C&WT, Chi. trolleys and el.

GLENN KRUSCHKE, Box 501, Largo, Fla., sells dupl. negs., sizes from 35 mm. to p.c. Write for details.

BOB LANE, Malden Bridge, N. Y., will buy 4 ohm teleg. sounder, good cond.

BOB LARSON, 831½ E. Grand Ave., Eau Claire, Wis., will buy size 116-616 steam negs. Soo or Omaha Rd.

DORAL LATE, Eureka, Wash., wants UP negs. sizes 116, 515, 120, 620, good cond., 2-8-8-0, 4-12-2, 4-6-6-4, 4-8-8-4, 4-10-2, 4-8-4, gas-turbine.

TOM LEAR, 512 Cambridge Rd., Coshocton, O., wants n.g. pix, emp. tts., RGS, D&RGW, C&S.

RON. LEITCH, 12815 Woodside Ave., Cleveland 8, O., wants still and 8 mm. movies of interurbans in Cleveland area. Will sell bound vol. *Mod. Railroader*, '51, $3.50 postpaid.

D. PEREZ DE LEON, Ave. Chietla 716, Col. La Paz, Puebla, Pue., Mexico, sells copies *Ferronales* (issued by Nat. Rys. of Mexico) ea. 10c coin.

JOHN MacDONALD, 555 Broadway, Hastings-on-Hudson, N. Y., will trade or buy pix oldtime and modern DL&W loco, tower, station. Wants Oct. '45 *Trains*. Send for list.

KEN MacDONALD, 145 Ryan Court, Fredericton, N. B., Canada, sells steam pix size 3½x6, ea. 25c coin, CPR, CNR locos and trains in N. B. and N. S. List 5c coin.

Maj. C. B. McCOID, Amphibious Base, Coronado, Calif., will buy *Railroad Magazines* prior to '38; *Modelmaker* '24, '25; *Whistle Stop, Min. Riding.*, all good cond.

J. M. McKERCHER, 811 Regent, Houston, Pa., will sell Forney's *Loco. Catechism*, good cond., $12 or swap for old toy train.

JOE McMAHON, 15 Adrian Ave., New York 63, N. Y., sells rr. and trolley pix, many pre-war; list for 3c stamp. *Off. Guides*, '45 thru '48, ea. $1.25.

ART. McNICHOLS, Box 33, Hazelhurst, Wis., will sell 156 *Railroad Magazines* Nov. '33; 1937 thru '54, fair to good cond.; make offer.

MARVIN MAHRE, 2081 Prosperity Ave., St. Paul 9, Minn., will swap Soo and NO tr. ords. for those of other rds. Buys Soo steam pix.

R. R. MALINOSKI, 246 Madison Ave., New Milford, N. J., has many 35 mm. Koda. steam shots to trade. Write first.

JACK MANLEY, 210 Ave. C., Snohomish, Wash., will buy old Morse teleg. instruments.

DOUG. MANKE, Hassler Health Home, Redwood City, Calif., has Japanese rr. photo book, 195 pages 7x8, thick glossy paper, text matter in Japanese, many phases of railroading. Will swap for philatelic items or what-have-you, or sell, $5.

PAUL MAXIMUKE, 19593 Coffinberry Blvd., Fairview Park 26, O., will buy any hardware from Cleveland streetcars, also Chi. Rys. tts., emp. tts., trfs., prior to 1930.

ALAN MEACHAM, 206 Dearborn Ave., Winnipeg 5, Canada, will sell *Railroad Magazine* Feb., Mar. '44; Feb. thru Nov. '47, postpaid, $2.

ROY MELVIN, 25 Middlefield Dr., West Hartford 7, Conn., offers *Railroad Magazine*, good cond., Mar., Aug. thru Dec. '40; all '41 $1.50; also '42-'47, $2.50 a year; '48-'53, $3.50 a year; Jan. thru Aug. '54, $2.35; not postpaid. Send stamped env. with query.

GENE MILLER, 1560 Johnson Rd., Granite City, Ill., says he has "new idea" for getting many steam negs. Details for stamped addressed env.

MAX MILLER, Box 315, College Corner, O. offers 100 size 116 steam prints, many lines assorted, $5

CLYDE MINER, 49 Burke St., Nashua, N. H., will sell 9x10 prints B&M steam. Price list free.

C. D. MORSE, Athol Rd., Petersham, Mass., will sell *Railroad Magazine* June '37 thru Dec. '54, exc. March '44; many other mags., emp. tts., rr books, etc. List for stamped env.

DON NATHAN, 248 Sterling St., Brooklyn 25, N. Y., buys emp. tts., old local tts., esp. Erie, M&StL, LIRR, DRG&W; also Erie pix; write first.

EDW. NEUBAUM, 1300 11th St., Des Moines, Ia wants railfan pen pals, esp. Canadians.

JON NONDAHL, RFD 1, Plainfield, Wis., will buy all-time BAR steam roster, steam pix; NYO&W diesel roster; Milw. steam pix, rosters, assignment sheets, etc.

SCOTT NIXON, SFC Bldg., Augusta 5, Ga., collects 16 mm. rr. movies, envs. with rr. corner cards, rr. scene postcards; r. match covers, stationery, sound effects, 2x4 slides.

DICK NOLAN, Box 331, New Hope, Pa., wants good pix and maps Conn. Co. central N. Y. State trolleys, interur. Send lists.

R. OSLER, 2020 Connaught Ave., Montreal, Canada, will sell 300 pix Canadian and U. S. roads; make offer.

SAMUEL K. OTOO, P. O. Box 11, Odumase St., Biseasi, via Essiam, Gold Coast, West Africa, wants to hear from North American railfans. (So does *his brother*, Owesi Otoo, *same address.*)

H. G. OWEN, Box 106. Romeo, Mich., will sell brass switch lock and key, 80 issues *Trains*, 100 *National* Geo. mags.; make offers.

O. A. PARRIS, 1019 13th St., Bremerton, Wash., will trade WP, Milw., GN, NYC, B&O, CGW, Sou *Sugar Crisp* metal heralds for RI, Rdg., GTW, Santa Fe, SP.

R. J. PATZER, 504 McKinley, Batavia, Ill., will swap back issues *Railroad Magazine* for (or will buy) *R&LHS Bulletins* 56, 65; *Pioneer Railroad*, book; Dec. '48 *Model R'roader*.

R. E. PENNICK, 8589 Lamar St., Spring Valley, Calif., will sell few 15-yr.-old bills of lading, San D. & Ariz. E., 10c ea., or trade for short-line or n.g. pix.

GAYLORD PLUMMER, CT3, 345-11-57, U. S. Navy Radio Facilities (S), Box 14, Navy 830, Fleet P. O., San Francisco, will sell or trade Jap. Nat. Rys. tts. and other JNR material. Write for list.

DAN QUINLAN, 320 Stoneford Ave., Oakland 3, Calif., wants B&A emp. tts. of '20s and '30s.

JOE QUINN, Box 24, Tillson, N. Y., will sell 800 pix (500 recent), plenty steam, elec.; some n.g., NYC, CNR, PRR, NKP, N&W, WM, etc. Lists and sample 25c.

SY REICH, 92 St. Marks Pl., New York City, has or will take 35 mm. Kodachrome slides and 8 mm. Kod. movies of lines in Northeast. Wants NYW&B pix.

F. REIFSCHNEIDER, Box 774, Orlando, Fla., offers 6 sample pages book *Third Ave.* (N. Y.) Rv. with large photo illust., 3c stamp.

NORMAN REINHARDT, 896 Main Ave., Passaic, N. J., wants any size negs of GN GP-7's; C&WC, ACL, Erie, PRR, in trade for size 127 Erie negs.

PETER REINHARDT, same address, sells emp. tts., 656-page British Rys. tt., French Nat. Rys. tt., local tts. on many east U. S. rds. Send for list.

D. M. RICE, 131 Southworth St., West Springfield, Mdss., trades *Off. Guides*; wants '30, '35, '40, '45. Write for lists of emp. tts., rulebooks; send your list.

M. E. RICH, Box 89, Sta. J, Toronto, Canada, offers new pix Toronto subway and surface eqpmt, 15 for $2. Sells color slides, 8 mm. movies

WM. RIEHL, 124 Steven St., Hamilton, Ont., Canada, will buy U. S. rr. literature, pix, info.

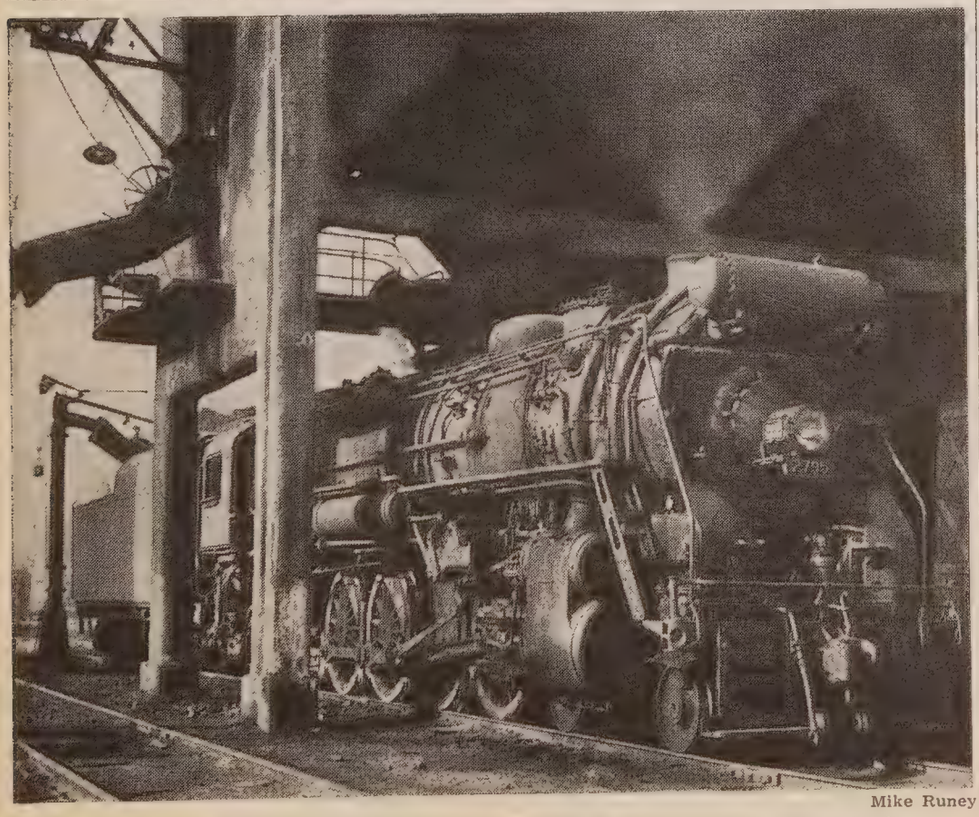
B. F. ROBERTS, Jr., RFD 7, Spartanburg, S. C., will sell pix and bldr. plates of Sou. Ry. steam locos and short lines in South.

C. C. ROBERTS, Rte. 2, Ozark, Mo., will swap '49-'54 *Off. Guides* for 5 diff. emp. tts. ea. or sell $1.25 ea. postpaid. Also has emp. tts. to trade.

PETER ROEHM, 7022 Flaccis Rd., Pittsburgh 2, Pa., sells pix of B&O, P&S, PRR, AC&Y, D&M, P&LE, Erie, others.

HAROLD ROSOVE, 399 Leslie St., Newark, N. J., wants pix or negs. of NYC diesel and elec. locos. Send your list or pix on approval.

ROBT. RUMER, 630 W. Chew Ave., Philadelphia 20, Pa., will sell *Railroad Magazine* '34 to date, good cond.; other mags., rulebooks, etc.; write for list.



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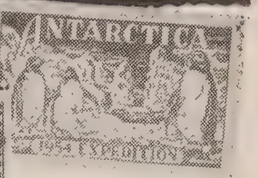


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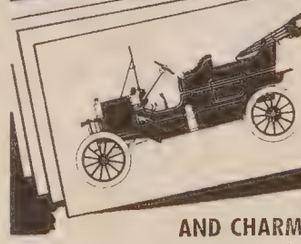

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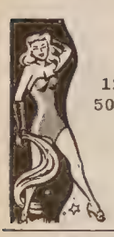

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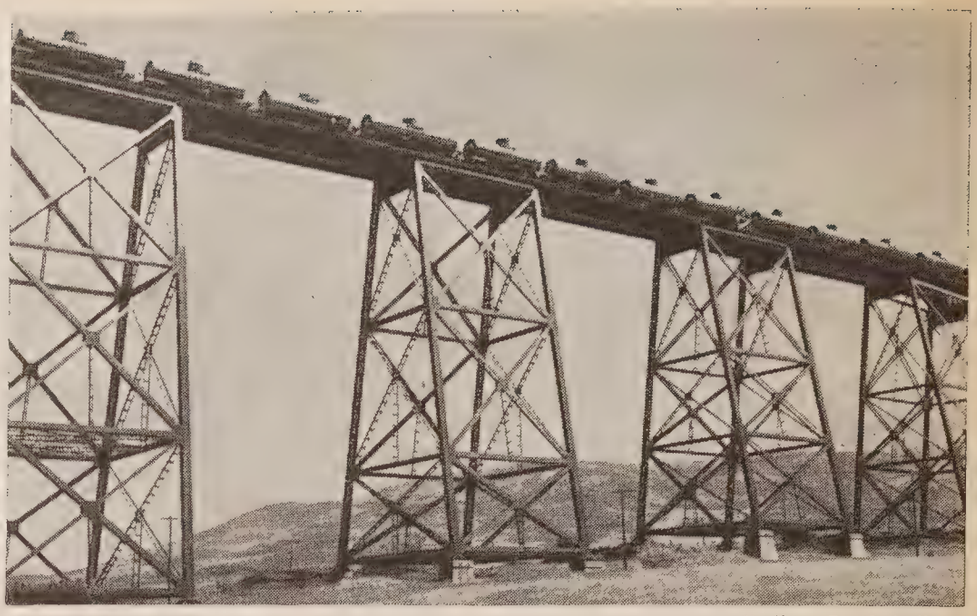

Northern Pacific Railway

**A string of Northern Pacific tank cars rumbles over a viaduct in North Dakota.**

G. M. SAUDER, 5641 Peach St., Erie, Pa., disposing of entire collection *Railroad Magazines*, model mags., some catalogs, *Trains*, etc., all good cond. What do you need?

A/3c RICHARD SCHNEIDER, AF 17395723, 575th Supply Sq., Selfridge AFB, Mich., sells diesel pix: CPR, Soo, MKT, NYC, WC, NP, CB&Q, etc. List for 3c stamp.

FRANK SEIFFERT, Jr., Box 21, Orange, N. J., sells steam and juice pix DL&W, FEC, Rut, CNJ, LVT, Wilkes-B., PSCT-NJ, etc. Either list plus 5x7 pic 25c.

RICHARD SHIDELER, Rte. 1, Box 160, Lathrop, Calif. will buy old pic SP roundhouse at Lathrop, also 1930 revised classi.-assign. SP loco book.

BEN SMITH, 265 Tompkins Ave., Brooklyn 16, N. Y., will sell *Railroad Magazine* '32-'54. *Trains*, model mags., cats. Wants PRR calendars, loco color-photos.

DWIGHT SMITH, Jr., RFD 1, Suncook, N. H., sells sizes 616-620 steam negs. and prints B&O, B&M, CNE, CV, GT, Rut. List for 3c stamp.

KEN SMITH, 328 Ave. F, Rondo Beach, Calif., sells 100 dif. metal stcar and bus tokens, incl. horsecar token, $10. *(He believes he has world's biggest transit token collection, over 8000 dif.)*

ROBT. SPENCER, 6729½ Franklin Pl., Hollywood 28, Calif., sells railroadiana, books, mags., etc., list free.

WALLY STEIGERWALD, Cobb Hill, Aurora, Ind., wants loco classif. books, data books, rulebooks, pix NYC, MeC, Big 4, B&A, LS&MS, T&OC, P&E, 1900-'55.

J. F. STEINER, Jr., 91-38 114th St., Richmond Hill 18, N. Y., wants pix NYCTA, BMT Div., new 6400-series cars on BMT Jamaica line.

RON. STUCKEY, 1332 E. Tabor St., Indianapolis, Ind., will buy pix CA&S locos, eqpmt., stations; tts., emp. tts.; wants CA&S info.

VIRGEL SWIFT, 778 Le May Ferry Rd., Le May 23, Mo., has 119 *Railroad Magazines* ('37-'52) to sell or trade for HO eqpmt.; make offer.

TED TAETSCH, 12913 Matherson Ave., Cleveland 11, O., trades and buys Conn. Shore Line trolley pix.

TOM WALSH, 245 S. 3rd Ave., Mt. Vernon, N. Y., sells p.c. size pix NH diesels; CNJ, LI, PRR, B&M steam and diesel; Conn. stcars, others. List for 3c stamp.

N. R. WARD, 7 San Pedro St., Salinas, Calif., will buy pic SP loco 2811 or any 2800 class and info. on class.

E. A. WEBB, Box 42, Logansport, Ind., sells sizes 115, p.c., IC, Monon, SP, UP, etc. New list and sample 10c coin.

JOHN WEIGHTMAN, Box 696, Sacramento, Calif., will sell one 1925 SP gen. tt., incl. Peninsular Elec. Ry. and river boats, $3.

RON. WELCH, 203 E. Pine, Gallup, N. M., trades n.g. D&RGW size 616 negs. and 35 mm. color slides. Wants to hear from slide collectors.

ARTHUR WELLS, 64 Martyrs' Field Rd., Canterbury, Kent, England, wants bldrs, nos., dates built and withdrawn, disposal details if not scrapped, all PRR and NYC steam locos. Also details NYC renumbering.

DAN WENK, 734 Holly Pl., West Covina, Calif., will sell collection *Car Bldrs. Dicts.* and *Cyclos.*, 1879-1953. Write for details. Buys loco bldr. plates.

RAY WHITAKER, 16 Monte Vista, Watsonville, Calif., will sell or trade SP negs. List for 3c stamp.

GEO. WHITE, 76 Passaic St., Trenton 8 N. J., will buy any size pix Trenton stcars.

R. WHITE, Rte 1, Box 55-a, Maxwell, Tex., wants negs., pix, Kodachromes, movies, color slides, any class KC Pub. Serv. pass. or work cars; write first.

GARY WILSON, 353 Penn St., Pasadena 6, Calif., sells 10 pix present PE and LATL cars, sizes 616, p.c., $1. List and sample 10c.

PAUL WINNEY, Rte. 3, Box 1121, Jacksonville, Fla., wants 35 mm. color slide steam loco, SAL, N&W, or NYC.

LARRY VODRA, 715 Kieffer St., Wooster, O., sells pix CTS & Shaker Hts. RT, black-white and color.

CHAS. YRIGOYEN, Jr., 329 N. 5th St., Reading, Pa., buys Rdg., Pennsy steam negs., pix, taken before 1920; also W&N, PRSL, At. City RR., Cornwall RR.

JOSEPH YAMBOAH, c/o, S. K. Otoo, Odumase St., P. O. Box 11, Biseasi, via Essiam, Gold Coast, West Africa, wants railfan pen pal in U. S. or Canada.

WALT ZULLIG, 475 Oak Ave., Maywood, N. J., sells 35 mm. slides and 8 mm. movies N. Y. area rrs. and juice lines. Write for info., stating interest.

## MODEL TRADING POST

BRUNS TECHNICAL LIBRARY, 10740 Woodbine St., Palms, Los Angeles 34, Calif., will buy HO monthly mag. Vol. 1, issues 1 thru 8 exc. 5, 1948-'49; also *RR. Mod. Craftsman* Feb., Nov. '50.

LARRY BUTTE, Box 86, Harborcreek, Pa., will buy AF pilot and casting with front truck and crosshead guides for loco 1680. State price, first letter.

RUSS. CHRISTENSEN, 21 Fernwood Pk., Rochester 9, N. Y., has many unopened HO car and loco kits to swap for Lionel. Send your list.

DAVE CRAIG, 607 Oak Hill Ave., Youngstown, O., will trade rr. passes and HO and OO eqpmt.

JAS. CRIMMINS, Exeter, N. H., will sell many old issues *Mod. Bldr., Mod. Craftsman, Mod. R'roader;* details for 3c stamp.

RUDY DANQUIT, 31-74 29th St., Astoria 6, N. Y., will trade new and built-up HO scale train eqpmt. costing $500 for scale O gage items; NYC, PRR color calendars.

BILL GARBUTT, 312 S. Walnut St., Milford, Del., wants model rr. pen pals.

ART GILES, 33 Arcadia Lane, Hicksville, N. Y., will sell st.-gage locos, cars, switches, trk. Write.

ROBT. GOIN, 2714 Morlot Ave., Fairlawn, N. J., will sell Mod. *Craftsman* Jan., Mar. '52, Dec. '53, Mar. '54; some *Toy Trains*; 30c ea.

T. E. HAESLER, 5015 Victoria St., Vancouver, B. C., Canada, will sell scale model steam train, built 1887; 160 ft. trk.; make offer.

VAL JOERNS, 226 Kerlich Lane, New Braunfels, Tex., changing gage, will sell HO rr. and some O gage eqpmt. cheap.

JOHN KOWALSKI, 1846 W. 20th St., Chicago, Ill., will sell set of st.-gage AF pass. cars 4331 (incl. 2 Pullmans) and 4342 ob. car; $15.

Maj. C. B. McCOID, Amphibious Base, Coronado, Calif., wants Thuillgrim OO models, info., literature; also Graceline pass. eqpmt. and hand-lettered fr. cars or kits prior to '47.

BETT MARSH, Rte. 1, Box 43-B, Mojave, Calif., operating Indian Valley & Summit layout, swaps passes.

A. D. SLATER, 1596 Wood Rd., Cleveland Hts. 21, O., will buy 9-in.-gage steam or diesel loco.

BEN SMITH, 265 Tompkins Ave., Brooklyn 16, N. Y., has many Lionel st. and O gage locos to swap for Ives, AF, other makes, any gage.

NOEL WEAVER, Jr., 123 Newton Terr., Waterbury, Conn., will sell Mod. *R'roader* Oct. '53 thru May '55; others; half price List for stamped env.

RON. WELCH, 203 E. Pine, Gallup, N. M., will sell partly assembled MDC Atl. loco and DC eec. controls, good cond., for best offer over $30.

## FLAGSTOPS

RAILROAD ENTHUSIASTS, N. Y. Div., will sponsor excursion to Montreal over Labor Day Weekend. $19.35. Contact E. A. Hansen, Box 63, Packanack Lake, N. Y.

MILWAUKEE Chapter, NRHS, will sponsor these trips during NRHS convention: Sept. 3: tours over remaining Milwaukee streetcar lines, and of a Grand Trunk Milwaukee car ferry and Milwaukee Road locomotive terminal. Sept. 4: All-day trip over Chicago & North Western. Sept. 5: All-day interurban trip over North Shore line.

Write Milwaukee Chapter, NRHS, 3427 North 24 Place, Milwaukee 6, Wisc.

WESTERN Railroad Fans Convention will be held Sept. 10-11 at Hacienda Hotel, Fresno, Calif., with excursions from both Los Angeles and San Francisco areas. Write Russ Chappell, 231 Lucas St., Apt. 2, Los Angeles 26, Calif., for southern area; Arthur Lloyd, Jr., 3533 Pasadena Ave., San Mateo, Calif., for northern area.

IOWA Chapter, NRHS, will sponsor a trip over the electrified freight-only Southern Iowa Ry. Sept. 18, Centerville to Moravia. Fare: $2.00. Write Wilson Lemberger, Box 87, Wever, Ia.

NORTH JERSEY Chapter, NRHS, will sponsor an MU trip Sept. 18 over Lackawanna electric lines to Dover and Gladstone, return by diesel. Fare: $4 adults, $2 children. After Sept. 17: $4.50 and $2.50. Write G. R. Eggers, 42-07 Newtown Rd., Long Island City 3, New York.

WASHINGTON Chapter, NRHS, will sponsor a steam trip Sept. 18 over Baltimore & Ohio and Pennsylvania, Washington, D. C., to Richmond Furnace, Pa. Fare: about $6.50. Write John L. Little, 941 North Potomac Ave., Arlington 5, Va.

PITTSBURGH Electric Railway Club will sponsor a 327-mile steam trip over the Baltimore & Ohio, Pittsburgh to Kane, Pa., ove. Butler-Mt. Jewett freight line via double switchbacks. Fare: $7. Write C. E. Benjamin, 560 Allenby Ave., Pittsburgh 18, Pa.

BUFFALO & ROCHESTER Chapter, NRHS, will sponsor a trip over Baltimore & Ohio's BR&P and P&W branches Oct. 9. Write Wm. C. Kessel, 25 E. Quaker Rd., Orchard Park, N. Y., or Wm. Gordon, P. O. Box 68, Rochester, N. Y.

CONNECTICUT VALLEY Chapter, NRHS, will sponsor a trip Oct. 9 over New Haven and Boston & Albany. Fare: about $5. Write Edward G. Kelley, 20 Lake Place, New Haven 11, Conn.

LEHIGH VALLEY Chapter, NRHS, will sponsor trip to the Gettysburg Battlefield over Reading Oct. 16. Fare: $5.95. Write Ernest Kovacs, 416 Second Ave., Bethlehem, Pa.

LOUISVILLE Chapter, NRHS, will sponsor a steam trip this autumn on Kentucky & Tennessee, Stearns to Oz, Ky. Write Vic Uzoff, 3319 Utah Ave., Louisville, Ky.

IOWA Chapter, NRHS, will sponsor a 4-car MU interurban excursion over Fort Dodge line Oct. 16. Fare: $3.50. Write Edward H. Meyers, 1521 Carroll St., Boone, Ia.

NORTHERN INDIANA Chapter, R&LHS, plans a rail ramble Sept. 18, South Bend to Battle Creek, Mich., over GTW. Write Sanford A. Goodrick, Jr., 1707 Marquette Blvd., South Bend 28, Indiana.

WASHINGTON Chapter, NRHS, will sponsor a partly steam trip Oct. 23, Washington to Piney River, Va., over Southern and Virginia Blue Ridge. Contact John L. Little, 941 Potomac St., Arlington 5, Va.

TOLEDO chapter, NRHS, sponsors Mad River & Lake Erie round trip via PRR, Toledo to Sandusky, Oct. 23, on track that hasn't had pass. train in 106 yrs. Contact Lloyd Brown, Toledo Trust Co., Travel Bureau, Toledo, O.

PACIFIC RR. SOCIETY to run fantrip, week-end Dec. 30-Jan. 2, over SP and Pacific RR. (Mex.) from Los Angeles to Mex. towns on Gulf of Calif. Contact P. R. Soc., Box 5279, Metropolitan Sta., Los Angeles, Calif.

$1500 IN PRIZES. New York Railroad Club's 7th Annual Essay Contest closes Oct. 1. $750 first prize. Limited railroad subject, 3000-7000 words in length, based on actual experience or special study. Write, John Burry, New York Railroad Club, Inc., 30 Church St., New York 7, N. Y.

COLLECTORS of Jeff Davis lore may obtain free, as long as supply lasts, 8-page illustrated reprint of *L&N Magazine*'s article on Davis funeral train: "The Great Chieftain's Last Ride." Write Louisville & Nashville RR., Adv. and publications Depts., Louisville 2, Ky.

NATIONAL ARCHIVES in Washington, D. C., sells prints of Matthew Brady photographs of Civil War railroads. All 8x10 prints cost $.75. For list, write National Archives, Still Photo Section, Washington 25, D. C.

NORTHWESTERN PACIFIC maps in the August issue were drawn by Frederic Shaw. Photo of NWP 183 on page 45 was by Stanley Borden.

LOGGING ROAD LIST in August issue brought some additions, amplifications, and corrections from Elliot Kahn, 413 Royal St., New Orleans 16, La.

Many of the lines listed are really industrial railroads which transport freight between sawmill and nearest rail connection. Among these are Alger-Sullivan (Fla.); Crosby Goodyear Pine Lumber Co. (Miss.); Hillyer-Deutch-Edwards, incorrectly listed as H. D. Edwards (La.); Kurth Lumber Co. and Frost Lumber Industries (Tex.). Frost Lumber Industries owns the common-carrier Mansfield Railway & Transportation Co. at Mansfield, La.

Other lines listed are at least momentarily inactive: Homochitto Lumber Co. (Miss.); Bentley Lumber Co., Crowell-Spencer Lumber Co., Louisiana Cypress Lumber Co., Turner Timber Co. (La.); and W. T. Carter Bros. (Tex.), which also owns the common-carrier Moscow, Camden & St. Augustine.

Brooks-Scanlon (Fla.) and King Lumber Industries (Miss.) lines are no longer in operation. The Canton & Carthage, one-time King line, is now operated independently as a common carrier.

Mr. Kahn adds these lines to our list: Angelina County Lumber Co.'s, 31-mile common carrier Angelina & Neches River, Keltys, Tex.; Allison Lumber Co.'s 23-mile common carrier, the Sumpter & Choctaw, at Bellamy, Ala.; Dicks Lumber Co.'s 36-mile DeQueen & Eastern and 40-mile Texas, Oklahoma & Eastern, both common carriers, DeQueen, Ark.; Chicago Mill & Lumber Co.'s line at Waterproof, Ala., and its 196-mille Helena & Southwestern, most of which operates over Missouri Pacific trackage; Gaylord Container Corp.'s two lines out of Bogalusa, La.; Temple Lumber Co.'s hundred-mile line between Pineland and Evadale, Tex., mostly over Santa Fe trackage; and Temple Lumber Industries' Southern Pine Lumber Co. Lines and its common-carrier Texas-Southeastern, Diboll, Tex.

Fisher Hardwood (La.) was incorrectly listed as Fisher Hardware, and Holly Ridge Lumber Co. is also known as Franklin Lumber Co.

UPPER SADDLE RIVER RR, working historical exhibit, is located on Saddle River Rd., 1 mile north of Fair Lawn, N. J. This 2-foot-gage line is ¾ mile long and boasts 2 engines, a caboose, 2 passenger cars. Line operates daily May through Oct. and most weekends at other times. Round-trip fare is $.20, adults; $.14, children. A collection of over 200 animals, a merry-go-round, fire-truck, pony, and other rides are also located on the premises. Van Walsh, who once worked on the Bridgton & Harrison, is Pres.-G.M., while 4 high-school boys and an older man keep the line running—Bob Goin, Supt.; Bill Wilson, M. M.; Milt Breunig, Eng.; Dave Gordon, Cond.; and Jim Whitaker, Agent.

RAILROAD MAGAZINE'S staff served as judges in recent photo contest held by Milwaukee Chapter, NRHS. Grand Prize went to Jim Scribbins for shot of the *Hiawatha* and a steamer at the Milwaukee depot. Donald Dietrich's photo of Chicago & North Western 651 was best still, and R. W. Eichelburg's view of Milwaukee electric lines West Jct. Local was best action shot.


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Limited space prohibits telling you more here but if you will write me I will reply at once and tell you how I received this wonderful relief.

**Mrs. Lela S. Wier**
**2805 Arbor Hills Drive-52**
**P. O. Box 2695**
**Jackson 7, Mississippi**

# How I foxed the Navy

## *by Arthur Godfrey*

The Navy almost scuttled me. I shudder to think of it. My crazy career could have ended right then and there.

To be scuttled by the Navy you've either got to do something wrong or neglect to do something right. They've got you both ways. For my part, I neglected to finish high school.

Ordinarily, a man can get along without a high school diploma. Plenty of men have. But not in the Navy. At least not in the U. S. Navy Materiel School at Bellevue, D. C., back in 1929. In those days a bluejacket had to have a mind like Einstein's. And I didn't.

"Godfrey," said the lieutenant a few days after I'd checked in, "either you learn mathematics and learn it *fast* or out you go. I'll give you six weeks." This, I figured, was it. For a guy who had to take off his shoes to count above ten, it was an impossible assignment.

I was ready to turn in my bell-bottoms. But an ad in a magazine stopped me. Here, it said, is your chance to get special training in almost any subject—mathematics included. I hopped on it. Within a week I was enrolled with the International Correspondence Schools studying algebra, geometry and trig for all I was worth.

Came week-end liberty, I studied. Came a holiday, I studied. Came the end of the six weeks, I was top man in the class. Within six weeks I had mastered two years of high school math, thanks to the training I'd gotten.

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- ☐ Traffic Management

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- ☐ Chem. Lab. Technician
- ☐ General Chemistry
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- ☐ Sanitary Engineering
- ☐ Structural Engineering
- ☐ Surveying and Mapping

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- ☐ Structural Drafting

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"Up to our necks in Radio-Television work. Four other NRI men work here. Am happy with my work."—Glen Peterson, Bradford, Ont., Canada.

"Am doing Radio and Television Servicing full time. Now have my own shop. I owe my success to N.R.I."—Curtis Stath, Ft. Madison, Iowa.

"Am with WCOC. NRI course can't be beat. No trouble passing 1st class Radio-phone license exam."—Jesse W. Parker, Meridian, Mississippi.

"By the time I graduated I had paid for my course, a car and testing equipment. Can service toughest jobs."—E. J. Streitenberger, New Boston, Ohio.

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Keep your job while training. I start sending you special booklets that show you how to fix sets the day you enroll. Multitester built with parts I send helps you make $10, $15 a week extra fixing sets while training. Many start their own Radio-Television business with spare time earnings.

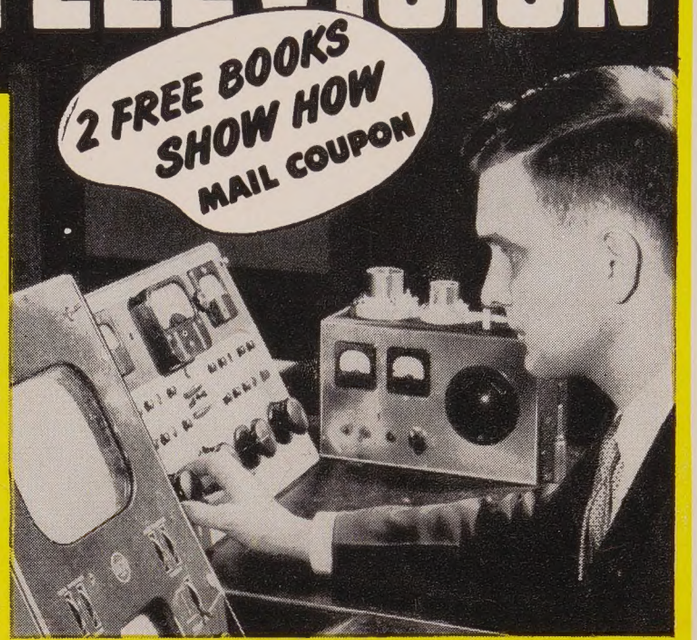
### My Training Is Up-To-Date

You benefit by my 40 years' experience training men at home. Well illustrated lessons give you basic principles you need. Skillfully developed kits of parts I send (see below) "bring to life" things you learn from lessons.

## You Learn by Practicing with Parts I Send

Nothing takes the place of PRACTICAL EXPERIENCE. That's why NRI training is based on LEARNING BY DOING. You use parts I furnish to build many circuits common to Radio and Television. As part of my Communications Course, you build many things, including low power transmitter shown at left. You put it "on the air," perform procedures required of broadcasting operators. With my Servicing Course you build modern Radio, etc. Use Multitester you build to make money fixing sets. Many students make $10, $15 week extra fixing neighbors' sets in spare time while training. Coupon below will bring book showing other equipment you build. It's all yours to keep.

**The Tested Way To Better Pay!**




**Television Making Good Jobs, Prosperity**—Even without Television, Radio is bigger than ever. 115 million home and auto Radios to be serviced. Over 3000 Radio broadcasting stations use operators, technicians, engineers. Government, Aviation, Police, Ship, Micro-wave Relay, Two-Way Radio Communications for buses, taxis, trucks, etc., are important and growing fields. Television is moving ahead fast.

About 200 Television stations are now on the air. Hundreds of others being built. Good TV jobs opening up for Technicians, Operators, etc.

25 million homes now have Television sets. Thousands more are being sold every week. Get a job or have your own business selling, installing, servicing.

## Radio-TV Needs Men of Action—Mail Coupon

Act now to get more of the good things of life. Actual lesson proves my training is practical, thorough. 64-page book shows good job opportunities for you in many fields. Take NRI training for as little as $5 a month. Many graduates make more than total cost of training in two weeks. Mail coupon now. J. E. SMITH, President, National Radio Institute, Dept. 5JR4, Washington 9, D. C. OUR 40TH YEAR.

### Good for Both—FREE

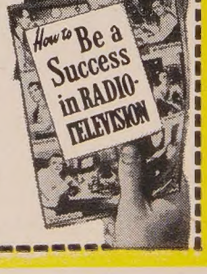
MR. J. E. SMITH, President, Dept. 5JR4
National Radio Institute, Washington 9, D. C.
Mail me Sample Lesson and 64-page Book, FREE.
(No salesman will call. Please write plainly.)

Name..... Age.....

Address.....

City..... Zone.... State.....

VETS write in date of discharge .....



# NEW! Make BIG MONEY With INSULATED JACKETS and SHOES!

**Start a Big Spare-Time Business!**

**Be FIRST to Take Orders!**
**Same Type Subzero Insulation**
**As U. S. Army COLDBAR SUIT!**

## SEND FOR *FREE* SALES OUTFIT!

Here's the money-making sensation of the year! Act quick, be first in your town to take orders for these amazing new Mason INSULATED Jackets, leather Boots and Shoes . . . results of a remarkable scientific discovery! This new miracle insulation has thousands of plastic air cells that provide perfect **"dead air space" insulation.** Look what it does!

● Keeps you cozy WARM even at **below zero** temperatures! ● Keeps you DRY even in wettest weather, because it **cannot absorb water!** ● Protects you from even strong WINDS! ● Provides amazing BUOYANCY! ● And it is unusually LIGHTWEIGHT! This is the same type of insulation used in the U. S. Army Coldbar Suit and proved in the rugged wilds of Korea! Because these new Mason products will not be available in any store in your town, folks **must** buy from YOU!

**You don't have to invest a cent to run a Mason Shoe & Jacket business.** We'll rush you **FREE** a complete Starting Outfit that contains everything you need to start making money! Take orders for just 2 of these lightweight Insulated combinations a day, and you'll earn $360 EXTRA INCOME in one month!

**Just think of all the folks who will fill your pockets with cash for these Insulated combinations:** friends, relatives, fellow workers, sportsmen, truck drivers, cab drivers, policemen, postmen, milkmen, gas station, construction, railroad men—hundreds right in your own community!

You'll also have 190 OTHER money-makers to help you build a big, profitable spare-time business that brings you cash profits EVERY month! Send for your **FREE** Sales Kit **TODAY!**

## "MIRACLE" FEATURES WILL MAKE MONEY FOR YOU FAST!

### INSULATED OXFORD, TOO!

Both boot and oxford shoe are loaded with special features that make folks buy on sight!

1. Miracle insulation provides a cushion all around the foot!
2. Fully leather lined!
3. Built-in Air Cushion innersoles!
4. Lightweight outsoles are oil-resistant Neoprene Cush-N-Crepe!
5. Storm welts, bellows gussets keep water and snow out! The most complete protection from cold, rain, snow, wind ever designed for the foot, it's no wonder outdoor workers will "grab" these from you!

### YES! YOU CAN FLOAT!

With Mason's Insulated Jacket, Insulated Shoes, special Insulated Pants **you can float INDEFINITELY!** This makes outdoorsmen buy the entire Insulated Combination FAST! Look at these EXTRA features in the jacket: made of water repellent washable Nylon . . . detachable hood . . . button front . . . knitted wristlets . . . and it is lightweight! These sensational new Mason Insulated Jackets, Shoes, Pants are going to create a national craze. Get in on the ground floor in your town *NOW*. Send for your Free money-making Outfit **today!**

## 190 Other Money-Makers for You!

As our authorized Mason Man in your town, you will have in your hands an ideal source of Big EXTRA Income every month. Every dollar you earn is 100% PROFIT! Your market is unlimited because EVERYBODY needs shoes and jackets . . . and Nationally-advertised Mason products sell quickly. Here's why:

● You show a selection no ordinary store can match: **170 different styles** in dress, sport and work shoes for men and women, plus a complete line of jackets!

● Folks get **fitted easily** because you feature an amazing range of sizes (2½-15) and widths (AAAA-EEEE)!

● You're **never "Out" of a style, size or width,** because you draw on our huge stock of 200,000 pairs!

● You feature our exclusive **Velvet-eez foamy-soft AIR CUSHION INNERSOLES** . . . a blessing for people who work on their feet! These shoes bear the famous Good Housekeeping Seal and have been accepted for advertising in publications of the American Medical Association!

ACCEPTED FOR ADVERTISING IN PUBLICATIONS OF THE AMERICAN MEDICAL ASSOCIATION

To start this exciting business **right away,** mail the coupon **now.** We will rush your powerful FREE Jacket and Shoe Selling Kit that includes 10-second Air Cushion demonstrator, foolproof measuring instructions, how-to-make-Big Money Booklet—**EVERYTHING** you need to make money from the first hour and start building a steady BIG PROFIT repeat-order business as thousands of others have done with Mason! We'll also show you how to earn extra Bonus Checks each month! **Rush your coupon TODAY!**

## RUSH FOR *FREE* OUTFIT!

Mr. Ned Mason, Dept. MA-642
Mason Shoe Mfg. Co., Chippewa Falls, Wisconsin

Yes! I want to be **first** to take orders for Mason's amazing new Insulated Jackets and Shoes and make $360.00 a month EXTRA for just 2 spare-time combination sales a day! Please rush my powerful FREE Sales Kit featuring the entire Mason line, with EVERYTHING I need to make Big Money from the **first hour!**

Name.....

Address.....

Town..... State.....

# MASON SHOE MFG. CO.

CHIPPEWA FALLS, WISCONSIN Dept. MA-642